



SYNTHESIS OF RESEARCH ON BILINGUAL EDUCATION

We have all been brought up to believe that a straight line is the shortest distance between two points. In education, it might seem logical that the best way to teach English to limited English speakers is simply to teach them English. However, folk wisdom also teaches us that the longest way around is sometimes the fastest way home. This is essentially what bilingual education is all about. It takes the well-worn but oft-ignored injunction to "accept students where they are" quite literally, and it operates on two basic premises:

1. People are more likely to learn anything, including English, if they understand what they are being taught.

2. Students with limited English ability will not fall behind their English-speaking peers if they can keep up with subject matter content through their native language while they are mastering English.

These premises seem so obvious and self-evident that they would appear to need no further elaboration. The bulk of research evidence to date strongly supports the bilingual approach as superior to any other. Yet bilingual education remains such a controversial and misunderstood area that a basic understanding of relevant research findings is essential for any-

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one who must make decisions affecting students of limited English ability.

First of all, it will be helpful to clarify what is meant by bilingual education and to review some of the more frequently mentioned options.

Definitions

The most common definition of bilingual education, used in the Bilingual Act of 1968 (ESEA Title VII, as amended), is *the use of two languages, one of which is English, as mediums of instruction*. Within this framework, a number of different approaches and options are possible. It should be emphasized, however, that a bi-lingual program must utilize both the student's native language and English. The relative amount and balance between them is a matter for further consideration.

Bilingual programs may involve (a) learning to read first in another language and subsequently transferring this skill to English, or (b) using the native language only orally and introducing reading first in English after enough of it has been learned. While the first alternative is definitely preferable, it may prove impracticable to implement for various reasons.

Bilingual programs range from French/English programs for the children of the wealthy in private schools to Inupiaq/English programs for Eskimo children in Alaska. While English-speaking children can benefit greatly from bilingual schooling, our greatest concern is with the programs for children from minority language backgrounds with limited English proficiency who frequently have a history of low educational achievement.

Two terms commonly found in the literature to label programs, "transitional" and "maintenance," are actually quite misleading and should be dropped from use. The terms properly refer to the purposes of a bilingual program: either to provide a transition into English or to enable

children to maintain their native language while developing sufficient command of English to participate on an equal basis with English speakers in the regular classroom. Thus the same program may be seen by some as transitional, and by others as maintenance, or one may have a three-year maintenance program and a six-year transitional program. Actually, as we shall see, maintenance supports transition.

References to ESL (English as a second language) or ESOL (English for speakers of other languages) are frequently encountered in discussions of programs for limited English ability students. These acronyms refer to a professional field—there is a national teachers' association, TESOL—and a broad and far from unified set of theories and practices regarding the learning and teaching of a second language. These range from older behavioristic and mechanistic notions and methods to newer cognitive and communicatively-oriented ideas and approaches. The differences among them are so great that it is difficult to characterize what they have in common, other than a recognition that a person's lack of ability in English should not be interpreted as a deficit, and a realization that a knowledge of the sounds and structure of English is useful as a roadmap for guiding student's learning.

Unfortunately, bilingual education and English-as-a-second-language programs are sometimes administratively counterpoised, the question being whether to adopt one or the other. The perspective adopted here, which

has been endorsed by the TESOL organization (TESOL, 1976) is that ESL should be a part of any bilingual program, not an alternative to it.

In recent years, a great deal has also been heard about immersion programs. The best known examples are in Montreal, where English-speaking parents initiated programs to teach their children entirely in French from the first grade onward. The generally positive results have stimulated a few schools in this country to follow suit.

Research Results

Any treatment of research relevant to bilingual education must begin by noting that funding for such research has until very recently been almost nonexistent. The picture has brightened considerably in the past two years, but the results will still be some time in coming. Meanwhile, we must rely, to some extent, on research data from other countries.

The only large-scale evaluation of Title VII-funded programs, carried out five years ago by the American Institutes for Research (AIR), was flawed in a number of respects, and contributed little to our research knowledge. (For critiques, see Cárdenas, 1977; O'Malley, 1978.) Only five and a half months were allowed between the pre-test and post-test, which is not considered enough time to provide a valid measure of growth. The comparability of control students used in the study was questionable, since students in the bilingual programs were more likely to be there because they had lower academic standing and English competence to begin with. Further, teacher assess-

ment of language dominance was used with no check on its accuracy. And despite great variation in program design and outcomes, all programs were combined for reporting purposes. Although not all of the findings can certainly be dismissed, there are enough problems to seriously question the results. Unfortunately, the AIR report has in general been accepted uncritically and given wide publicity in the press.

We shall focus here on the areas of research that have the greatest relevance for bilingual programs: (1) sociolinguistics and bilingualism, (2) second language learning, (3) socio-cultural factors, and (4) effectiveness of bilingual education.

Sociolinguistic studies on language attitudes have shown that negative attitudes by the dominant group, including teachers, can have a depressing effect on minority student achievement. "Matched guise" studies using recordings of the same individuals speaking English and another language or an accented (foreign, regional, or nonstandard) variety of English, show that the non-English or accented guise is consistently rated lower in ability and intelligence (Lambert and others, 1975). Because of such attitudes, many children from minority language groups in the U.S. have grown up feeling ashamed of their native language. Often, they reject the language, along with their family ties, or try to hide their knowledge of it. In northern Colorado, for example, Spanish-speaking students have even been found to adopt Anglicized mispronunciations of Spanish in order to avoid being stigmatized by the socially dominant Anglo student group!

Early studies of bilingualism tended to compare middle class monolinguals with lower class bilinguals, and not surprisingly found that the economically disadvantaged bilinguals scored lower on IQ and other tests (Darvy,

1963). The unwarranted conclusion, which long went unchallenged, was that bilingualism itself was a disadvantage. More recent studies which have been carefully controlled for social class and other differences, have found no such disadvantage for bilinguals and in fact have found an advantage over monolinguals in cognitive flexibility and linguistic abstraction (Peal and Lambert, 1962; Feldman and Shen, 1971). Eddy (1978) has suggested that the positive effects of bilingualism are more likely to show up when both languages have been the subject of formal instruction in school than when they are simply "naturally" acquired.

Perhaps in part because of this, graduates of FLES (foreign language in the elementary school) programs have tended to show higher achievement when they reached secondary school. Since FLES programs were in fact a limited type of bilingual program, it is possible that similar long-range sleeper effects will be found with the graduates of current Title VII and state-funded bilingual programs.

Very often bilinguals, in talking with other members of their group, will shift back and forth between their native language and English, changing even within sentences. This phenomenon, known as *code-switching*, has been popularly misunderstood as a confusion between the two languages or a corruption of the native language. Intensive research on the subject during the past ten years has revealed that neither of these perceptions is correct. Such persons are

readily able to confine themselves to either of their two codes when circumstances require it, and can shift into the code-switching mode when speaking to another bilingual. Moreover, not all persons who are bilingual can readily code-switch, and it is now coming to be recognized that the ability to code-switch is a special social skill (Valdés, 1978).

Most languages, including those spoken by students in bilingual programs, will show some evidence of regional and social variation in pronunciation, grammar, or vocabulary. So-called purists, who generally are uninformed about the history and development of varieties of the language, denounce such usages and criticize the students who use them as uneducated. As with English, students frequently come to school speaking a nonstandard variety of the language and must learn a standard or book form in class. Negative teacher attitudes directed toward students' use of these forms—and of code-switching—are likely to have an inhibiting effect on their motivation and self-esteem, as well as on their achievement. As an illustration of this effect, it is commonplace for native Spanish speakers in the Southwest to express shame over their use of Spanish—and to receive lower grades in Spanish classes than Anglo students who can barely speak the language!

Second Language Learning

Although people have been learning and teaching second languages for millennia, remarkably little is known about the subject even now. Most research has focused on college-age and adult learners of foreign languages and is of uncertain application to younger learners. In the past few years, however, there has been a growing interest in the learning of second languages by children, stimulated in part by the growth of bilingual education. Some initial find-

ings are now available which can provide at least tentative direction to curriculum development and instructional practices.

The most extensive longitudinal research on foreign language learning that we have available is a study of the learning of French by 17,000 students in British schools from primary through secondary school. Perhaps the most significant finding was that as they grew into adolescence, working-class students' achievement declined sharply in comparison to that of middle-class students. This decline could be attributed primarily to attitudinal and motivational factors, as students perceived no practical utility to their learning, had little parental encouragement, and ethnocentrically rejected foreign things and middle-class values (Burstall, 1975). Social class differences and the social values that accompany them can thus have a powerful effect on language learning.

A growing amount of research points to the conclusion that, contrary to previous beliefs, older students learn a second language more rapidly and efficiently than do younger children. While persons beyond the age of puberty are rarely able to develop an unaccented pronunciation (and it is correspondingly futile to attempt to teach one), there appears to be a consistent pattern of growth in language learning ability, at least through late adolescence (Ervin-Tripp, 1974; Ramírez and Politzer, 1978). In bilingual programs, delaying extensive use of English until the upper elementary grades might make teaching it more cost effective.

Personality factors may also affect second language learning. Children are not simply automatic language learners, as was previously thought. They may be selectively inattentive and simply tune out stimuli which are not personally relevant to them. Shy, insecure, or introverted individuals who avoid engaging in linguistic interaction with their peers or the teacher are less likely to learn the language at the same rate as someone who is more actively involved. The amount of individual participation in or attention to meaningful communi-

cation appears to be the significant variable involved, a fact teachers need to be sensitive to (Wong-Fillmore, 1976; Schumann, 1977; Hatch, 1978).

Individual attitudes may also play a part. Negative feelings toward the group speaking the second language may inhibit learning the language, as may feelings of low self-worth or rejection by the other group. (Self-concept measures, however, are notoriously poor indicators of achievement, since lower socioeconomic class students, including many minority language speakers, frequently show unrealistically high scores.)

Sociocultural Factors

Social and affective factors have a powerful effect on learning the language of a dominant social group by members of a socially subordinate linguistic minority. Some of the most interesting research in this regard has come from a recent study of Finnish immigrants in Sweden (Skutnabb-Kangas, 1979), which found that students who completed most of elementary school in Finland before moving to Sweden did better in Swedish after two years of study than Finnish students who had been educated in Sweden from the first grade. Furthermore, achievement in math, chemistry, and physics correlated highly with Finnish language skills.

A similar picture is widely found among children who immigrate to the U.S. from Mexico after the sixth grade. It is a common experience that such students rather quickly acquire English and soon out-perform Mexican-American/Chicano students who have been in U.S. schools since kindergarten or first grade. One study in Los Angeles (Kimball, 1968) showed significant correlations between high grades and both recency of immigration from Mexico and use of Spanish in the home.

Part of the explanation may lie in

the phenomenon of *subtractive bilingualism* described by Lambert (1975), which is common among minority groups. Finnish students who immigrated to Sweden at earlier ages rapidly lost their competence in Finnish and at the same time failed to gain full competence in Swedish, becoming semi-lingual, in the words of the researchers. A similar situation was found among Navajo students who had been in a regular all-English school program, but their loss of Navajo was reversed when they were placed in a bilingual program and their English improved as well (Saville-Troike, 1980). It has been suggested that interruption of development in the native language before linguistic skills are consolidated, which occurs around the age of ten or eleven, may have a destabilizing effect on cognitive development (Skutnabb-Kangas, 1979; Cummins, 1979). Thus, students in bilingual programs should do better if instruction in their native language is continued through the fifth or sixth grade.

The same effects do not appear to operate for middle-class students from the dominant group, as shown by the extensively researched French immersion programs for English-speaking students in Canada mentioned earlier (Swain, 1978; Kaufman and Shapson, 1978). These are for the most part voluntary programs in which highly motivated and supportive parents have placed their

children for full-time instruction in another—usually socially subordinate—language. It has been found that students learn curriculum content about as well as if they were being taught in English, and even transfer their reading skills from the other language to English and read on grade level in English. Thus they add a second language without suffering loss to their first—what Lambert has called *additive bilingualism*. Since their home life and much of public life outside the school is conducted in English, there is little threat to its dominant social status and little danger that students will forget it as they learn the second language.

Effectiveness of Bilingual Education

The failure of our traditional all-English curriculum to educate students of limited English ability is amply documented in national statistics showing low achievement levels and high drop-out rates for linguistic minorities. What is the research evidence for the effectiveness of bilingual education as a solution? And is ESL a valid alternative? There is growing evidence from programs around the country that bilingual education has proven a powerful approach to overcoming the problems posed by the language barrier. Students from non-English backgrounds in bilingual programs across the country are achieving close to or even above national norms in English, often for the first time in the history of their communities.

- In St. John Valley, Maine (French), after five years, bilingually-taught students outperformed students in matched English-medium schools in English and math scores. Prior to the bilingual program 80 percent of French-speaking students scored below grade level.

- In Sante Fe, New Mexico (Spanish), students in the bilingual program closely approximated the national norm on the Metropolitan Achievement Test in English in grades five and six, and exceeded the norm in math in grades four through six.

- In San Francisco, California (Chinese), students in the bilingual program were at or above district and national norms in English and math in three out of six grades, and only one month below in two others, as

measured by the Comprehensive Test of Basic Skills.

- In Pasco, Washington (Spanish), a longitudinal study showed that students went from the 10th to 50th percentile in English reading and from the 14th to the 70th percentile in math after three or more years attendance. The amount of gain increased with time in the program.

While the evidence for the effectiveness of bilingual education is thus mounting, there is no counterevidence in favor of an ESL-only approach. In fact, the situation is just the opposite. Although in some instances ESL programs have been shown to improve student achievement (Willink, 1968), in others they have been found to have no effect or even a negative effect (Upshur, 1968; Hale and Budar, 1973). In the few cases where ESL and bilingual education have been directly compared, bilingual education has been more effective. In the San Francisco case reported above, Chinese students in the ESL program scored no better than those who were in the regular school program.

The most tightly controlled comparison we have to date is from the Rock Point community school on the Navajo reservation, where students were above grade level in English reading by the end of their sixth year, while students in an ESL program were over a year below grade level in reading and falling further behind with each year. Figure 1 tells the story (Vorih and Rosier, 1978; Rosier and Holm, 1980).

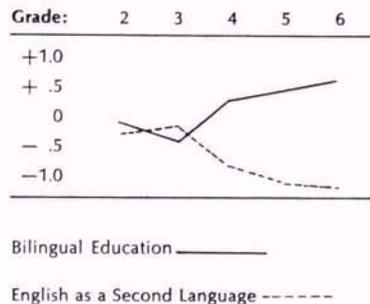


Figure 1. Grade-equivalent scores in English reading from Rock Point Navajo bilingual program and BIA Navajo area ESL program (based on Vorih and Rosier, 1978)

The figure dramatically illustrates the value of continuing bilingual edu-

cation to the sixth-grade level. Most bilingual programs tend to terminate at the end of the third grade before the full benefits of bilingual education have been realized. A similar cumulative effect has been found in Sante Fe, New Mexico, and elsewhere. Maintaining students' native language skills through the sixth grade can thus help their transition into regular English-only classrooms more successfully.

Figure 1 also demonstrates the potentially misleading results of short-term evaluation. An evaluation carried out at the third-grade level would have erroneously concluded that ESL was more effective and would have failed to discover the superior long-range effects of the bilingual approach.

There is no research as yet to show whether one curriculum model in bilingual education is more effective than another, but the National Institute of Education has recently funded several large-scale projects that should provide some useful information within the next several years.

However, some studies have already indicated that excessive use of English in the bilingual classroom ironically tends to lower students' achievement in English. Increased parent involvement in their children's education, made possible by breaking down the language barrier which separates parents from the school and the educational process, may help enhance students' achievement. Most important of all, it may simply be providing a learning environment which truly accepts the child and shows respect for his or her culture, part of which includes the language. Even a well-conceived program may fail, however, if it operates in a hostile environment which negates all of the positive signals the teacher and the curriculum transmit to the child.

Bilingual education offers us an avenue for resolving a long-standing internal contradiction in American education. We have long extolled the benefits of learning other languages, and learning to understand other cultures, while at the same time systematically depreciating and attempting to eradicate some of these same languages when they were brought to school by native speakers. Through the use of the child's language in the classroom, we acquire a new educational tool which will not only help

us to educate the child more effectively, but will contribute to building our national linguistic resources (President's Commission on Foreign Language and International Studies, 1979). As a nation, we need to communicate more effectively with the world outside our borders and the world within as well. Every speaker of another language should be looked upon as a resource to be guarded and cultivated. ■

The National Clearinghouse for Bilingual Education answers questions and provides computer searches at no charge. A monthly newsletter, Forum, is also available free of charge. Call toll-free (800) 336-4560 or write NCBE, 1300 Wilson Boulevard, Suite B2-11, Arlington, Virginia 22209.

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Highlights from Research on Bilingual Education

According to ESEA Title VII, bilingual education is the use of two languages, one of which is English, as mediums of instruction. The second language *must* be the student's native language.

Bilingual education is based on two premises: (1) people are more likely to learn anything if they understand what is being taught; and (2) students with limited English ability will not fall behind if they can study subject matter content in their native language while they are mastering English.

Recent findings may be contrary to some commonly accepted notions. For example:

- Bilingualism is not a disadvantage. Bilingual students actually have an advantage over monolinguals in cognitive flexibility and linguistic abstraction.

- Code-switching—the ability to shift between one's native language and English, sometimes in mid-sentence—is a special social skill, not merely a corruption of either language.

- Introverted students are less likely to learn a language at the same rate as extroverted students since language achievement is affected by the student's participation and ability to communicate meaningfully.

- Negative teacher or societal attitudes directed toward non-English background students or their culture inhibit student motivation, self-esteem, and achievement. Social values have a powerful effect on language learning.

- Ironically, excessive use of English in bilingual classrooms tends to lower students' achievement in English, although increased parent involvement and positive teacher attitudes about the second language and its culture help break the language barrier.

- Persons beyond the age of puberty are rarely able to develop an unaccented pronunciation. However, through late adolescence, older students continue to grow in language learning ability. Extensive use of English in bilingual programs should be delayed until the upper elementary grades.

- Children who are able to continue in bilingual programs throughout their elementary school years make significantly greater achievement gains than children in programs teaching English as a second language, where they may actually fall behind grade level.

- Consolidation of linguistic skills occurs around 10 or 11 years of age. Interrupting the development of a child's native language may have a destabilizing effect on the child's cognitive development. By losing competence in the native language and failing to gain competence in the second language, the child may become semi-lingual (a concept referred to as subtractive bilingualism). Thus, students in bilingual programs do better if instruction in their native language is continued through the fifth or sixth grade.

- English-speaking students in immersion programs who study their regular curriculum in a second language (usually one that is socially subordinate) learn the curriculum about as well as if they were taught in English (additive bilingualism). Because English is spoken at home and in society, these students are not apt to forget their native tongue as they learn the second language.

ASCD's Research Information Service will help members locate sources of information on other topics. Send specific questions in writing to Research Information Service, Association for Supervision and Curriculum Development, 225 North Washington Street, Alexandria, VA 22314.

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