Interim results of the American Institutes for Research study on the impact of the ESEA Title VII Spanish/English Bilingual Education Program imply that certain inferences can be made about the program, inferences which are unjustifiable. By providing only statistical averages on a national sample, the report does a serious disservice by failing to distinguish between the effects of good programs and weak programs, and treats bilingual education as funded under Title VII of ESEA as an undifferentiated uniform whole.

The report is subject to criticism on several grounds: (1) weakness of pre- and post-test design over a five-month period; (2) inappropriate use of gain scores to assess effects of experimental treatment; (3) unreliability of teacher assessment of students' language ability; (4) inappropriate use of the California Test of Basic Skills to assess English reading ability with limited English and monolingual Spanish speakers, possibly invalidating the results; (5) lack of adequate teacher training and curriculum during the first five years of Title VII funding, (6) distortion of information, defeating the intended purpose of the report, i.e., to provide information for policy makers; and (7) aggregation of students who have received a variety of educational treatments funded by Title VII and who demonstrate varying language ability. (Author/CLK)
Response to AIR Study "Evaluation of the Impact of ESEA Title VII Spanish/English Bilingual Education Program"

April 18, 1977

The pending release of the American Institutes for Research study "Evaluation of the Impact of ESEA Title VII Spanish/English Bilingual Education Program" gives the illusion that certain types of inferences can be made about the program, when, in fact, they are not justified. The report, by providing only statistical averages on a national sample, does a serious disservice by failing to distinguish between the effects of good programs and weak programs, and treats bilingual education as an undifferentiated uniform whole, which it is not.

The report is subject to criticism on several grounds:

1. Weakness of pre- and post-test design over a five month period;
2. Inappropriate use of gain scores to assess effects of experimental treatments;
3. Unreliability of teacher assessment of students' language ability;
4. Inappropriate use of the CTBS to assess English reading ability with limited English and monolingual Spanish speakers, possibly invalidating the results;
5. Lack of adequate teacher training and curriculum during the first five years of Title VII funding;
6. Distortion of information which defeats the intended purpose of the report, i.e., to provide information for policy makers;
7. Aggregation of students who have received a variety of educational treatments funded by Title VII and whose language ability ranges from monolingual English to bilingual to monolingual Spanish conceals the potential effect of bilingual education.

These concerns will be dealt with in detail below.

1. According to several noted psychometricians, the use of a pre-post test design is inadequate to determine the significance of change between experimental and control groups. This problem is particularly acute here owing to the extremely short five month interval between testing periods. The research indicates that numerous difficulties arise in
the formulation of questions in terms of gain scores which tend to conceal limitations that are inherent in the data.

2. Questions about the effects of experimental treatments are frequently phrased in terms of gains. For example, does treatment A result in larger gains than treatment B? Do students in Title VII bilingual classes gain more than students in non-treatment classrooms? Although these questions seem intuitively reasonable, it does not follow that the best approach to answer them will involve the use of measures of change as dependent variables. In the AIR study, random assignment was not possible, since children are assigned to bilingual programs because of their limited English speaking ability. Without random assignment it is, of course, possible that differences that may be observed in the post test score are the result of pre-existing group differences rather than treatment effects.

3. The results of the study are questionable when one considers that the individual student’s language ability was assessed by the teacher. This type of assessment is questionable particularly in the case of a monolingual teacher evaluating a bilingual child. Research indicates that teacher assessment is a notoriously unreliable measure of student language proficiency.

4. The sole use of the CTBS to assess English reading ability is highly questionable particularly in the case of the bilingual-Spanish-dominant and Spanish-dominant children. Although these evaluated projects were in the fourth and fifth years of funding, the students in these classrooms varied in their length of project participation. Therefore, it is probable that the reading scores of monolingual Spanish speakers and limited English speakers who were recently placed in the bilingual classrooms would have negatively skewed the test results. The important issue here is the statistical aggregation of test scores without regard for in-group variation. It would be equivalent to giving the monolingual English students the Spanish Prueba de Lectura to assess their reading skills in an unknown language.

5. Although the projects included in this study were in their fourth and fifth years of operation, it was not until 1974 that federal funds were appropriated for teacher training or material development centers. AIR's own survey of the Title VII projects indicated that they vary greatly with regard to teacher expertise, class-hours devoted to language instruction in English and Spanish, curricula, community involvement, and student language abilities. To compare Title VII projects as a unit is highly misleading.
6. This is not to say that the data base could not provide valuable information concerning bilingual education. The continuation study to be completed by AIR in the Fall of 1977 has the potential to examine the important variables which can effect the impact of bilingual education and produce good programs: (1) teacher training and language; (2) teacher attitudes; (3) number of years students have been in bilingual classrooms; (4) type of materials used in classrooms, etc. It is regrettable that the combined efforts of the Office of Planning, Budget and Evaluation (OPBE) and AIR will not look at the important issues of: (1) English oral language development; (2) Spanish as a second language achievement; (3) monolingual student growth; (4) student self-concept; (5) attendance and drop-out rates.

The interim report has analyzed those results which are of concern to OPBE—not policy makers interested in providing quality education for limited-English-speaking children.

7. In general, the type of analyses performed in the AIR study conceals the effects of important influences on educational outcomes in bilingual education. The fact that this study found little or no relationship between educational outputs and achievement is highly misleading. It is evident that the combination of data and statistical techniques used are unlikely to reveal such relationships even when they exist. The aggregate grouping of students who have received a variety of educational treatments which are funded by Title VII and considered to be bilingual education and whose language ability varies across the board will not provide information of value to policy makers.

The ensuing debate over the report in question will do little to advance our understanding of how bilingual education affects children, since the stated conclusions in this interim report are not warranted by the method of analysis used in the report. It will be important to wait for the completion of the full study which will provide a more detailed analysis of factors operative in bilingual programs.

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