How We Develop Bilingual Instructional Materials

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Effective materials for use with bilingual pupils are urgently needed. Work of the center described here is directed toward supplying this need.

Since 1970, the Spanish Curricula Development Center (SCDC) has been charged with the task of developing and producing instructional materials needed in bilingual programs of Spanish and English. Located in Dade County, Florida, the project, funded through Title VII, initially was headed by Ralph F. Robinett, a curriculum expert with many years experience in the field of curriculum development and in particular with materials intended for language minority students. His expertise set in motion the processes that began what seemed to some a quixotic, insurmountable task because of the magnitude and complexity of the project.

The impetus for this undertaking was the extent of the need. As of 1977, at the elementary level, 30,549 students are enrolled in Spanish Language Arts in Dade County alone. Nationwide the impact of the Lau vs. Nichols decision and the resulting Office of Civil Rights remedies have further expanded the programs provided to children of limited English-speaking ability. In addition, bilingual programs as alternative educational approaches are being established in areas where there is not a linguistic minority present. Consequently, the purposes for the development of curriculum in Spanish are multifold: (a) to utilize the resource of children who are bilingual by providing materials that reflect their language and culture; (b) to make available a curriculum written in the United States for limited-English-speaking students who are in programs where the basic skills and content areas are being developed in Spanish as the students learn English; and (c) to provide curriculum for non-Spanish speakers who benefit from the enrichment experiences of a bilingual instructional program.
Although SCDC has been of national scope since its inception, presently it functions as part of the two-year-old National Network for Bilingual Education, a group of 32 support projects funded by the Office of Bilingual Education in the U.S.O.E. SCDC is one of 14 centers charged with the task of developing instructional materials for multilingual, multicultural programs. Fifteen other centers train teachers, cooperate with LEA's and SEA's providing programmatic assistance and pilot test materials developed by the materials development centers. The remaining three centers publish, disseminate, and assess bilingual materials produced by the Network centers and other Title VII funded projects.

Rather than retrace successes and failures during the past several years, the process that has been followed will be described in general terms. As in the development of most curricula, the process included a needs assessment survey of teachers, administrators, and community representatives that provided some basic directions. Experts, both as theorists and practitioners, were consulted. Research in innovative and effective curricula was carried out. The philosophy that resulted is reflected in the rationale of the approaches utilized in the various components of the materials.

The program objectives, as described in the proposals submitted, included the development and production of instructional materials in five basic areas or strands at the elementary level: Language Arts, Social Science, Science/Health, Fine Arts, and Spanish as a Second Language. All the strands were intended for native Spanish speakers with the exception of Spanish as a Second Language. The target population consists mainly of Mexican Americans or Chicanos, Puerto Ricans, and Cubans.

To ensure credibility three factors were considered essential. First, a staff of approximately 35 persons was to reflect the three main ethnic groups. Second, following each fiscal year, products as projected in the program objectives were to be available for use in the classroom. Third, evaluation instruments to determine the effectiveness of the materials were to be developed.

As a preliminary step, the staff analyzed existing curricula in English from the United States and Spanish curricula from abroad. The staff received training in different areas: performance objectives, the inquiry approach, the process approach, career education, and values clarification. Consultants, local and nonlocal, Spanish-speaking and non-Spanish-speaking, were identified to provide input to the different strand writing teams. The framework for the curriculum was designed to be multidisciplinary, integrated, and parallel, where necessary and cost-effective, to cur-
Organizing Threads

The writing teams began the task of identifying basic skills, concepts, and processes in the different disciplines. These, along with the main features, methods, techniques, and the general philosophy and rationale for the various approaches used in the curriculum, constituted a Product Design used in the development of the materials and in the training of pilot test teachers.

The Product Design also included the organizing threads that unify the different subject areas. In the intermediate block, grades 4-6, which are now in various stages of development, these elements are:

- Basic science and social science concepts
- Themes such as "The Nation as a Community" and "The World as a Community," which have related spiraling questions: "What are the individual’s alternatives," "How can he/she initiate change," and so on
- Processes from science
- Inquiry strategies such as developing concepts, interpretation of data, and exploration of feelings
- Career awareness at the level of exploration using HEW’s career clusters.

These elements, in various forms, appear throughout the five strands as appropriate to the activities being developed. The result is an integrated, interdisciplinary approach that allows the student to see relationships, as in real life, among different subject areas.

The major goals for each strand are also summarized in the Product Design. In Language Arts, the main goals are to develop comprehension and interpretation skills related to a basal reading program; develop language analysis skills; and develop creative expression at the verbal, nonverbal, and written levels. The activities are designed to present the experiences and language the Spanish-speaking students bring from the home as well as to extend the experiences and language to different levels as they learn about the community and world around them.

In Social Science, the main goal is to develop critical thinking skills through an inquiry learning approach. The content reflects the various social science disciplines, the Hispanic culture, and the themes and concepts that serve as organizing threads for the entire curriculum. In grades 1-4, the approach used is based on Hilda Taba’s studies in the social sciences. In grades five and six, a concept acquisition/application method, which utilizes Taba’s pupil behaviors
as well as the values clarification technique, is used to extend and personalize the concepts presented previously.

The purpose of the Science/Health strand is to develop the process approach to natural phenomena. The content reflects similar English curriculum programs with the emphasis being placed on actual experimentation by students. Health activities support the science concepts.

The Fine Arts Strand is designed to develop the cultural arts: folklore, dance, architecture, music, painting, sculpture, and crafts. Tape cassettes include songs in Spanish and instrumental music. Emphasis is placed on the development of culture and civilization, and the Hispanic tradition.

Spanish as a Second Language includes an aural-oral approach to the instruction of Spanish to non-Spanish speakers. The strand is multidisciplinary, presenting concepts from the other subject areas in the SCDC curriculum. Linguistic content is controlled, and the cultural content reflects both the American and the Hispanic cultures. The final objective of this strand is to enable the students to function by the sixth grade in a regular Spanish language arts class.

A routine procedure for the creation of the smallest unit of instruction, called a kit, consists of the making of specific projections by the writer, curriculum coordinator, and area consultant within the design established. These projections usually require research and eventually are manifested in activities, related books, or some form of media. Each grade level has been divided into 12 parts or kits in order to allow for various levels of function including writing, piloting, and revision. The kits contain the following components:

1. A Teacher's Guide which gives the teacher a written account of the intellectual content and all that must be done to carry out an activity
2. A Supplement that provides the teacher with all the visuals needed in order to effectively implement and reinforce the activities
3. A Ditto Packet which provides individual materials to be reproduced for successful implementation, reinforcement, and enrichment of the activities in the Teacher's Guide
4. Pupil's Reading Books which provide visual stimuli for the development of vocabulary and comprehension and interpretation skills related to the structured reading program
5. Puppets serve as an enjoyable device for the presentation and practice of oral language development activities and reading skills, for use with Language Arts and Spanish SL
6. Tape Cassettes contain songs and instrumental music for use with Fine Arts
7. Slides serve as visual stimuli in the development of Fine Arts.

The activities have a layout comprising the focus, objective, materials needed, and title in both English and Spanish. The body of the activity is in Spanish and gives a step-by-step description to the teacher.

In order to meet the timelines connected with the use of federal
funds, the writing of the kits is done within a specific period of time. Once the writers turn in the product, an editor checks it for format, consistency, style, and workability of activities, and makes revisions if necessary.

The edited kits are then typed and illustrated. This material is checked, duplicated, and distributed to teacher training and resource centers throughout the United States.

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The staff from SCDC trains the staffs of resource centers, who in turn train the teachers piloting the materials. These teachers, working with Chicano, Puerto Rican, and Cuban children, provide feedback on the actual use of the materials. This feedback is returned to SCDC where it is analyzed and reviewed by a committee. Many of the recommendations are approved and implemented by the Revised Edition editor. This revised edition is sent to the Dissemination/Assessment Center in Texas, where it is published and disseminated. Marketing of the materials is done by that center. Locally, in Dade County, the implementation of the materials is coordinated with the Department of Bilingual Programs.

In the primary block, grades one to three, four editions resulted: Northeast for Puerto Ricans, Southeast for Cubans, Southwest for Mexican Americans, and Multiethnic

for mixed populations. These editions reflect regional and ethnic variations.

In the revision process, the kits are converted into units consisting of four kits each. The following are available in all five strands from the Dissemination/Assessment Center in Texas:

Primary—Units 1-3, First Grade
Units 4-6, Second Grade
Primary—Units 7-10, Third Grade.

The fourth grade is being revised and partially published (Unit 1, Intermediate is already available). The fifth grade is being piloted, and the sixth grade is in progress.

Accompanying each unit of instruction are criterion-referenced tests. These tests may be used by classroom teachers for placement, for evaluation of pupils' progress, and for the diagnostic prescriptive approach. In addition, these tests are the instruments used in the experimental design. Results of this design in the Language Arts Strand indicate that there is a significant difference in achievement when students use SCDC materials.

In the schools, the SCDC materials are being used at levels ranging from kindergarten to sixth and seventh grades, due in part, to the need for low level, high interest readers and to the overall open-ended design of the materials.

Our experiences with users of the materials have been very encouraging. Teachers report that students look forward to the stories and the activities and attribute this interest to the relevance of the content presented. Currently, the materials are being piloted in 13 states, from California to New York, and from Illinois to Louisiana. The series has been purchased in more than half of the states by different school districts.