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ABSTRACT

Early identification and supplementary instruction for the Mexican American child who is also handicapped are essential. The purposes of the Ability Development Programs are to identify the child with existing and/or potentially handicapping conditions, to develop and test supplementary materials, and to determine the efficacy of supplementary instruction within the regular bilingual classroom.

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The purpose of this paper is to report the results of the Ability Development Projects designed (1) to identify handicapped children in regular preschool bilingual classrooms, and (2) to help the identified children learn at a rate commensurate with that of their non-handicapped classmates. The first project, for Four-Year-Old children, was completed in 1975, and the second project, for Five-Year-Olds, is scheduled for completion in May, 1977.

Identification instruments developed include the Spanish/English Language Performance Screening, the Observational Checklists for Referral, and an adaptation of the Hikey-Nebraska Test of Learning Aptitude. Instructional materials include Working With Parents of Handicapped Children, How To Fill Your Toy Shelves Without Emptying Your Pocketbook, Supplementary Activities for Four-Year-Olds, and Observation-Action-Activity Cards for Five-Year-Olds.

First, the background and goals of the projects are described. Next, the procedures followed in identifying and working with "target" children, including summary information on the tests developed and the Supplementary Instructional Materials, are described. Finally, results of the Four-Year-Old project are summarized and results-to-date of the current project for Five-Year-Olds are described.
BACKGROUND

For many preschool Mexican American children, the development of competency in their first language (Spanish) and learning a second language (English) are complicated by the problem of handicapping conditions which affect their ability to learn. In recent years, there has been an increase in the number of preschool programs which focus on one of the following: 1) teaching English as a second language, 2) bilingual instruction (instruction in Spanish as well as teaching English as a second language), 3) identification and instruction of handicapped children in monolingual special classes, and 4) inclusion of the handicapped in classes with the non-handicapped child. Few, if any programs exist that focus on identifying and assisting handicapped Mexican American children enrolled in a bilingual preschool program with non-handicapped children.

In the Ability Development Projects, funded by the Bureau of Education for the Handicapped (OEG-0-74-0550 and OEG-00-75-00592), moderately handicapped children have been included with non-handicapped children in bilingual instructional programs. Program goals are:

1. To identify children with existing and/or potentially handicapping conditions.
2. To design and provide supplementary instruction for identified children.
3. To determine whether children receiving supplementary instruction can learn at a level commensurate with that of their non-handicapped peers.

In these projects, the term, handicap, is used at an applied level to include children who demonstrate problems in learning regardless of cause, rather than at a categorical or etiological level of specificity such as blind.
deaf, emotionally disturbed, minimally brain injured, etc. This approach is followed because it is meaningful to the classroom teacher, interfaces with the instructional program elements (Visual, Auditory, Motor, and Ideas and Concepts) of the Bilingual Early Childhood and Kindergarten curricula, and problems of erroneous labeling and negative expectations are avoided. Thus, children with problems in auditory learning include those with varying degrees of hearing loss as well as those who are unable to attend to auditory stimuli for other reasons (brain injury, emotional disturbance, etc.)

In previous years, the Southwest Educational Development Laboratory had completed development of the Bilingual Early Childhood Program (BECP) and the Bilingual Kindergarten (BK) in which basic skills and knowledge are taught in Spanish prior to learning English as a second language (SEDL, 1974). Use of the BECP for Four-Year-Olds and the BK for Five-Year-Olds as the basic instructional program provided a replicated basic instructional program to which supplementary activities could be added. The instructional curriculum of the BECP and BK is divided into the following instructional elements: Visual, Auditory, Motor, Ideas and Concepts. Language development is inherent within each of these elements and an optional element of vocabulary is also included.

PROCEDURES

Identification of children with existing and/or potential problems in learning, the "target" children, was the first goal. After reviewing available tests, it was decided to use Criterion Referenced Test items, selected items from norm-referenced tests, and to develop two additional instruments, the Spanish/English Language Performance Screening and the Observational Checklists for Referral.
The Spanish/English Language Performance Screening (S/ELPS) is designed to assist the classroom teacher in identifying each child's stronger or dominant language for initial learning in a bilingual program. It may also be used to identify the better language for administration of other tests such as readiness and speech tests. The S/ELPS consists of two parts: the Spanish section, administered first, and the English section, administered second. The two sections are parallel and contain similar, but not identical, items. The test samples a variety of behaviors in both languages: answering questions, naming and describing objects and pictures, and following directions. Test procedures are informal and emphasize encouraging the child's spontaneous verbalization. The test compares the child's performance in one language with his performance in the other. Test results are used to assign the child a Language Category which reflects his behavior in both languages. The Language Categories used in scoring the S/ELPS are: Spanish, Predominantly Spanish, Bilingual, Predominantly English, and English. A sixth category, Insufficient, describes those children who do not respond sufficiently in either language for an evaluation of their stronger language to be made.

The S/ELPS has been field tested and validated with four- and five-year-olds and for use by professional and paraprofessional teachers. Face validity was established on the basis of (1) in-house review by linguists, site specialists, and persons trained in speech and language development, (2) external consultant review, and (3) review by teachers of young Mexican American children. The equivalency of the parallel forms was evaluated by reversing the language of administration for a small sample. The objects and pictures were tested and selected on the basis of demonstrated familiarity to young Mexican American children. The correlation between S/ELPS results and later teacher ratings of dominant language was $r = .85$ for a sample of 223 children. The manual was
revised, based on formative feedback from 25 teachers who administered the test
to more than 500 children. Teacher responses to the S/ELPS were generally
favorable:

"I was able to see where my children were, who would fit in
a bilingual group, and who would fit in a Spanish group."

"It helped me find out why some of the children were having
problems learning. They didn't understand a certain language."

The Observational Checklists for Referral (OCR) is an observational guide
designed to assist the preschool teacher with little or no previous training in
identifying children who need to be referred for more extensive evaluation and
diagnosis. It is also designed to guide the teacher in making referrals and to
facilitate communication between the teacher and the referral source.

The OCR consists of an instructional manual for the teacher, a General Checklist to be completed for all children within a class, and six Specific Checklists to be completed for children identified on the General Checklist. The manual includes instructions for completing the checklists, a general discussion of each specific checklist and the problem area it is designed to identify, descriptions of the common behavioral signs of such problems, guidelines for making and following up on referrals. Observational techniques and skills are explained along with descriptions of the signs the teacher is to look for. Explanations and descriptions are presented in practical, nontechnical language.

General and Specific Checklists are included. The General Checklist contains 20 items which describe in broad terms common, visible, or behavioral signs of problems in young children, i.e., "Is frequently sick or seems to have poor health"; "Has extreme difficulty paying attention and concentrating on what he is doing."

Each item on the General Checklist is keyed to one or more of the Specific Checklists. The six Specific Checklists (Health, Vision, Hearing, Speech, Motor, and Social/Emotional) describe unusual behaviors and symptoms in more detail. The
Specific Checklists are designed to focus the teacher's observations and to provide information about the child's classroom behavior for parents, physicians, psychologists, or other referral persons.

The OCR has been used by teachers and assistant teachers in 14 classrooms with more than 240 children. Formative evaluation data, as well as external consultant reviews, were used to revise the manual and checklists. Research to determine the number and percentage of under- and over-referrals is presently being conducted. Projected development includes validation with larger groups of children and observers and establishing the effectiveness of the OCR for broader age ranges.

Some of the teacher comments about the OCR are as follows:

"I was very impressed with it. It explained many things that I was not aware of, it was easier for me to make a checklist."

"Convenient to use and helpful."

"I very much like having the guide handy as a quick referral for certain situations. The sources are also good information because sometimes professionals are unavailable."

Norm-referenced tests were reviewed by Spanish and English speakers in order to identify items which were not culturally or language biased and were relevant to basic instructional goals of the BECP. A limited number of items were selected from the WIPPSI and the ITPA, and several items from the Hiskey-Nebraska Test of Learning Aptitude. Data from the norm-referenced items were used primarily as pre- and post-learning period information for individual children in the project for Four-Year-Olds. The norm-referenced test battery included the following items: Color Memory, Picture Association, Picture Identification, Paper Folding, and Visual Attention from the Hiskey-Nebraska; Block Design from the WIPPSI; and Visual Sequential Memory, Visual Closure, and Manual Expression from the ITPA.
A Criterion-Referenced Test (CRT) was developed for use on the Four-Year-Old project. This CRT covered the first 15 units of the basic BECP curriculum. The CRT was composed of 23 items, yielding 4 subtest scores (Visual, Auditory, Motor, and Ideas and Concepts) and a total score. For the Five-Year-Old project, a CRT covering 12 units (full-year) has been developed and is presently being revised. A major problem is the length of time required for the classroom teacher to individually test all the children and the inability of children entering school for the first time to attend to group testing. Projected revisions are the development of a simple, easy-to-administer, CRT which includes both group and individual items to be administered by assistants and volunteers as well as the classroom teacher.

Supplementary Activities to accompany the BECP for Four-Year-Olds were developed and tested. Activities were developed for more than half of the basic curriculum (a total of over 200 activities and media). Each activity correlates with a specific lesson with which children had difficulty and provides an alternate way for the child to learn.

For the BK for Five-Year-Olds, Observation, Action, and Activity Cards have been designed and tested. Following revisions, they will be field tested in the Fall of 1977. The Observation Cards accompany each lesson of the basic curriculum and help the teacher focus on specific aspects of the lesson with which the child may have difficulty. Each Observation Card is referenced to an Action Card and Activity Card. The Action Cards provide general adaptations or changes to help the child with a specific type of problem. The Activity Cards include a step-by-step analysis of how to teach the particular task with which the child encountered difficulty.
FOUR-YEAR-OLD PROJECT

All four-year-old Mexican-American children (N=99) enrolled in Model cities day care centers in Austin, Texas, were randomly assigned to one of five classrooms. On the basis of the above battery of tests, 40 children were identified as having some type of problem: visual, auditory, motor, health, speech, emotional, and/or general learning. Using the Observational Checklists for Referral, the areas and percentage of problems identified were as follows: Health = 21%, Vision = 1%, Hearing = 6%, Speech = 20%, Motor = 8%, and Social/Emotional = 44%.

Although it was not possible to validate the OCR during this project, these results indicate that a high incidence of problems was perceived by the teachers. This number included children with minor problems such as intermittent hearing loss or mild misarticulations.

Only those children with problems severe enough to interfere with their learning were included as target children (N=29). Of this group, 22 were available for post testing. From the remaining 59 non-target group, 22 were selected at random for post learning period comparison. The target group was divided into two groups: Target Intervention (N=10) and Target Non-Intervention (N=12). All children were instructed with the basic BECP curriculum. In addition, the Target Intervention group received supplementary instruction. Supplementary activities were provided for very small groups of no more than five children or on an individual basis for a period of five months. In some cases, two or three supplementary activities for each lesson were necessary. The activities were conducted by the classroom teacher or project staff in Spanish or in English, depending upon the child's needs.

On the Criterion Referenced Test items, statistically significant pre-post test results were obtained for the comparison Non-Target group and the Target
Intervention group but not for the comparison Target Non-Intervention group. All pre-post, sub-test results for the Target Intervention group were significant (Visual-t=3.05, p<.01; Motor-t=4.88, p<.05; Auditory-t=2.09, p<.05; Ideas and Concepts-t=3.21, p<.01). For the comparison Non-Target group, significant differences were found on the Visual, Auditory, and Ideas and Concepts sub-tests, but not on the Motor. These results indicate that the Target children who received intervention out performed Target children who received none, and furthermore, that they made gains commensurate with those of the Non-Target children.

On the selected norm-referenced items, pre-post gains for the Target Intervention group were significant on Picture Association (t=2.01, p<.05), Visual Attention (t=2.04, p<.05), Block Design (t=2.49, p<.025), and Visual Sequential Memory (t=2.85, p<.01). The Target Non-Intervention group made significant gains on Block Design (t=2.49, p<.025), Visual Sequential Memory (t=1.96, p<.05), and Manual Expression (t=2.41, p<.025). The Non-Target group made significant gains in Picture Association (t=3.81, p<.005), Picture Identification (t=2.21, p<.025), Block Design (t=4.43, p<.005), Visual Sequential Memory (t=4.40, p<.005), and Manual Expression (t=3.53, p<.005). Analysis of Covariance between the Non-Target and Target Intervention groups revealed no significant differences. Thus all the groups made significant gains and there was very little difference between the groups on the norm-referenced items.

In summary, on the basis of measuring the attainment of specific instructional goals through Criterion Referenced Tests, children with identified problems in learning on various handicapping conditions receiving supplementary instruction learned more than those who did not receive supplementary instruction. Also, their learning was commensurate with that of their peers. The results, however, of norm-referenced testing, even after careful review and selection of the items, are not as clear; they are, in fact, quite muddled.
The Ability Development Program for Five-Year-Olds was initiated in the Fall of 1975 and year-end results are not yet complete. Two kindergarten classes in Day Care Centers in Austin, Texas, and six classes in San Antonio, Texas, are participating in first-year activities. During this time, completion of the Spanish/English Language Performance Screening (S/ELPS) has been accomplished and the test has been validated with five-year-olds. Following U.S. Office of Education guidelines and requirements, a commercial publisher is being sought and the S/ELPS should be available for general use in the Fall of 1976.

A pilot study to determine the feasibility of validating the Observational Checklists for Referral (OCR) was conducted in the Austin Day Care Center with the two classes of five-year-olds plus one class of three-year-olds and a class of four-year-olds. This pilot study was conducted in order to compare teacher-administered OCR results with evaluations by external consultants (clinical child psychologist, pediatrician, educational diagnostician, speech therapists—Spanish and English, and nurses). There were 87 children involved in this study, of whom various numbers had follow-up screenings by professionals. Preliminary analysis attempted to determine both the over- and under-referral rates of each checklist. Over-referral was defined as a positive checklist rating and a negative rating following professional examination, and under-referral was the opposite. The OCR Motor Checklist (N=71) had a 12.7% over-referral rate and a 1.4% under-referral rate. The Speech Checklist (N=74) yielded a 10.8% over-referral and a 12.1% under-referral rate; The Hearing Checklist (N=58) produced a 19.0% over-referral rate and a 5.2% under-referral rate; and the Health Checklist (N=73) showed a 14.1% over-referral rate and a 29.6% under-referral rate. The last checklist, Health, was compared to each child's physical examination given prior to entering the
Day Care Center. This examination was not felt to be comparable with the checklist since the doctors were looking at such factors as immunization records which were not within the scope of the checklist. Investigation of the Social/Emotional Checklist was limited to 22 children. One child was over-diagnosed and five were under-diagnosed. The total under-referral rate ranged from 1.4% to 29.6% (Mean = 14.2) which indicated an 86% rate in correctly identifying those children who have some problem or have no problems which would interfere with learning.

Projected plans for completion of the OCR include revision of the present manual and checklists. Following revision, a more extensive validation study will be conducted.

The Observation, Action, and Activity Cards which are presently being design-tested will be revised on the basis of formative feedback. Field Testing is projected for the 1976-77 school year in public school and day care classes for kindergarten children. At that time, pre-post learning period data will be collected and analyzed. Future information on the results of the project will be available upon request.