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ABSTRACT

This document presents the results of a Texas survey undertaken to ascertain which developmental diagnostic and screening tests are used in the state to identify Mexican-American preschool children with learning disabilities. A total of 91 public schools, regional service centers, and Head Start centers throughout the state responded to the survey. Respondents were asked to indicate the extent to which they used each developmental test. They also delineated their population as: (1) Black, (2) Anglo, (3) Mexican-American (tests administered in English), or (4) Mexican-American (tests administered in Spanish). Results showed that the Peabody Picture Vocabulary Test, followed by the Stanford-Binet and IPAT Culture-Fair Intelligence Test, were used by the largest number of sites. Of the tests administered to Mexican-Americans, almost twice as many were given in English as in Spanish. Few schools reported using observation techniques for diagnostic purposes. A number of sites indicated that they adapted or developed tests for individual diagnostic assessment of learning problems. Brief descriptions of 20 tests are provided in a Test Reference List. (BRT)

SURVEY OF TESTS ADMINISTERED TO PRESCHOOL CHILDREN IN TEXAS

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Preschool bilingual children who have problems in learning are the focus of a special curriculum development project being conducted by the Southwest Educational Development Laboratory (SEDL) under a grant from the Bureau of Education for the Handicapped.* One part of this project included the identification and/or development of tests appropriate for Mexican American children of preschool age, in order to identify children in need of special instructional materials. To identify the target population--preschool Mexican American children with mild to moderate problems in learning--initial research included two steps: (1) identification and review of tests appropriate for children under age five, and (2) a survey to determine which of these tests are in current use with the target population in Texas.

Of the 2.6 million students enrolled in Texas public schools, an estimated 500,000 have learning problems requiring special attention, according to figures compiled by the Texas Education Agency (TEA). An 18-month study conducted by TEA of Texas special education programs revealed that less than 50 percent of all handicapped children in the past received special instruction. Texas State Plan A,

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mandated for all Texas public schools by 1976, stipulates that all schools must provide comprehensive educational services for "those children between the ages of 3 and 21 with physical, mental, emotional, and/or learning disabilities." The emphasis is not on the descriptive label, but rather on meeting the child's individual learning needs by providing opportunity consistent with his ability to learn.

At the national level, the Federal Guidelines for Head Start mandate that at least 10 percent of the enrollment in Head Start classes be comprised of handicapped children. Provision of equal educational opportunities for the preschool handicapped assumes the accurate identification of these children.

Compounding the problem of identifying those in need of special education in Texas is the fact that almost 25 percent of the student population are Mexican American, and many of them are Spanish speakers. Throughout the years, a large number of these children have been labeled as mentally retarded because they were unable to understand tests administered in English (Meisgier, 1966; Calzoncit, 1971). This fact, along with the state and federal mandates for providing education for the handicapped prior to first grade, emphasizes the need for the accurate assessment of young Mexican American children.

Following a review of tests developed for young children, a survey was designed to identify two types of tests: (1) specific tests used to identify children eligible for Plan A at the preschool level, and (2) tests used with Mexican American children, in English and in Spanish. The state's Plan A and the large Mexican American population made Texas an exemplary area for conducting the survey.

SURVEY OF TESTS USED

Survey Form

The Survey of Tests in Use consisted of three parts. Listed in Part I were 20 tests identified through the literature review (See Test Reference List). Respondents at the sites were asked to indicate whether a test was used, and if so, the extent of use as indicated by whether it was used (1) only at special centers or experimental sites, (2) across the school system, or (3) for all pre-school children. Respondents delineated the population at each site as (1) Black, (2) Anglo, (3) Mexican American--tests administered in English, and (4) Mexican American--tests administered in Spanish.

In Part II, respondents were asked to list the tests they used for screening or initial identification of children. In Part III, they were requested to list specific tests used or developed to measure particular abilities.

Respondents

Survey forms were mailed to Public Schools, Regional Service Centers, and Head Start Centers throughout the state. Of approximately 1,200 public school kindergartens, 100 were selected at random to participate in the survey. Survey forms were also mailed to 132 Plan A schools, the 20 Regional Service Centers, and 17 Head Start Centers. Table 1 lists the total number of school districts from which the random selection was made, the number of sites to which survey forms were mailed, and the number of responses received.

TABLE 1

SITES SURVEYED

SITES	No. of Possible Sites*	No. of Questionnaires Sent	No. of Responses Received
Public Schools:			
With Kindergarten Programs	1,200	100	21
With Plan A Programs	485	132	62
Regional Service Centers	20	20	8
Head Start Centers	68	17	**

*Based on 1973-74 figures.

**Due to lack of site specification on the returned survey forms, the Plan A and Head Start centers were combined for number of responses received and for survey evaluation.

Each respondent was asked to estimate the percentage of Blacks, Anglos, and Mexican Americans enrolled at his site. Not all sites reported the ethnic composition, nor did each site have all three ethnic groups represented. The systems varied greatly in ethnic composition, ranging from a totally homogeneous enrollment to a tri-ethnic balance. Table 2 shows the number of schools that reported some enrollment of each specified ethnic group.

TABLE 2

ETHNIC COMPOSITION OF SITES RESPONDING

SITE	No. Responding	Black	Anglo	Mexican American
Public Schools:				
With Kindergarten Programs	18	11	17	13
With Plan A Programs & Other	58	47	55	51
Regional Service Centers	4**	4	4	4
Head Start Centers*				

*Included in Plan A figures.

**Eight Regional Service Centers responded to the survey, but only four answered the question concerning ethnic composition of sites.

SUMMARY OF SURVEY RESPONSES

Listed Test Instruments

Shown in Table 3 are the responses concerning the use of 20 diagnostic tests specified on the survey. Responses were received from 62 Plan A schools, 21 public school kindergartens, and eight service centers. The tests are listed in order of frequency of use by each type of site, with the purpose of testing and target population tested specified for the total group using each test. As revealed in the table, the Peabody Picture Vocabulary Test was used by the largest number of sites (78), followed by the Stanford-Binet (64), IPAT Culture-Fair Intelligence Test (62), Wechsler Preschool and Primary Scale of Intelligence (WPPSI) (56), Frostig (51), and Slosson Intelligence Test (45). The Test of Basic Experiences (TOBE), while not used extensively in the public schools, was administered by all eight service centers, and the Raven Coloured Progressive Matrices and the Leiter International Performance Scale were fairly widely used by public school kindergartens. Of the tests administered to Mexican Americans, almost twice as many were given in English as in Spanish (436 vs. 221). Whether the tests administered in Spanish were on the basis of a standard written translation or an extemporaneous translation was not indicated, nor was it noted whether the same children received tests in two languages or whether different populations were tested in English and in Spanish.

Almost all of the tests were used primarily throughout the school system, that is, with children of all ages. The Denver Developmental Scale was used largely for diagnosis in special centers and at the preschool level, while the TOBE was used principally in preschools and throughout the system. Information and a brief description of each test are provided in the Test Reference List at the end of this report.

TABLE 3

SUMMARY OF SURVEY RESPONSES: USE OF SPECIFIED TESTS

TEST	SITES				USED FOR SPECIAL DIAGNOSIS IN (TOTAL N = 64)*			STUDENTS (TOTAL N = 64)*			
	Public Schools		Service Centers (N=8)	TOTAL SITES (N=64)	Special Centers	Across System	Preschool	Blacks	Anglos	Mexican Americ	
	Plan A (N=42)	Kindergarten (N=21)								English	Spani
Peabody Picture Vocabulary Test	57	13	8	78	42	127	47	53	70	58	35
Stanford-Binet Scale (Revised)	46	10	8	64	55	126	27	45	58	45	40
IPAT Culture-Fair Intelligence Test	41	13	8	62	23	102	23	44	54	46	14
Wechsler Preschool & Primary Scale of Intelligence (WPPSI)	44	9	3	56	31	104	23	39	52	44	23
Frostig	31	13	7	51	22	93	13	33	43	37	15
Slosson Intelligence Test	32	9	4	45	29	66	14	28	37	28	16
Leiter International Performance Scale	22	7	6	35	27	48	11	21	24	25	16
Valett	20	4	4	28	17	42	10	19	23	21	6
Detroit Test of Learning Aptitude	17	7	2	26	9	42	6	12	23	17	5
Preschool Attainment Record	11	1	4	26	12	17	13	11	13	11	7
Blakey-Nebraska	18	4	2	24	10	45	5	20	22	21	8
Raven Coloured Progressive Matrices	11	7	5	23	6	30	2	17	19	18	6
Arthur Point Scale	11	3	4	18	6	25	5	10	11	11	5
Denver Developmental Scale	13	1	3	17	20	1	13	9	13	8	4
Minnesota Preschool Scale	14	2	1	17	14	23	14	14	17	13	7
Test of Basic Experience (TOBE)	8	1	8	17	7	15	18	12	13	10	5
California Test of Mental Maturity	10	4	0	14	0	22	9	8	10	10	3
Cesell Developmental Schedules	8	1	4	13	5	24	3	9	10	9	4
Caldwell Preschool Inventory	5	0	0	5	1	2	7	3	4	2	2
Full-Range Picture Vocabulary Test	4	0	0	4	0	7	3	3	4	3	0

*Tests were administered in more than one school and more than one time in most school systems, which accounts for the results being greater than the indicated site total in several instances.

NOTE: On the following page is a list of additional tests reported by the sites.

ADDITIONAL SPECIFIED TESTS

(see Table 3)

TEST TITLE	NUMBER OF SITES LISTING
Goodenough Draw-A-Person Test	7
McCarthy Scale of Mental Abilities	6
Vineland Social Maturity Scale	5
Developmental Test of Visual Motor Integration (Berry)	5
Boehm Basic Concepts	5
Bender Visual Motor Gestalt Test	5
Vane Kindergarten Test	4
Slingerland Process Sample	3
WISC	3
Meaning Sheet Screening Test	2
Metropolitan Readiness Test	2
Utah Test of Language Development	2
Columbia Mental Maturity	2
Preschool Language Scale (Zimmerman)	2
ABC Inventory	2
Riley Preschool Developmental Screening Inventory	1
Meacham Verbal Langunge Development Scale	1
American Guidance Screening Test	1
Psychoeducational Evaluation of Preschool Children	1
Winterhaven Perceptual Test	1
Inter American Test of Oral English	1

Observation Instruments

The fact that few schools in Texas use standard observation instruments for diagnostic purposes in the preschool period is apparent in Table 4. Only 14 of the 84 sites reporting used standard observation instruments of any kind.

Specially Adapted Initial Screening Tests.

A number of sites indicated that they adapted or developed tests or parts of tests for individual diagnostic assessment of learning problems in preschool children. The developmental areas tested by the three types of sites are shown in Table 5.

The Plan A schools initiated a much larger number of initial screening devices than did the public school kindergartens or service centers. More were developed for use in testing visual, auditory, and motor areas than in the other learning areas. It appeared that initial screening took place primarily throughout the school systems, with only a small percentage administered at special diagnostic centers or to all preschool children. As in the other types of testing reported, more Mexican Americans were administered tests in English than in Spanish.

Specially Adapted Test Instruments

Diagnostic tests developed on site or adapted from existing tests were grouped for survey purposes by the following categories: receptive processes, such as visual, auditory, and tactile; expressive processes, such as oral language and motor response; central processes, including memory, association, and analysis; and other, to include anything not covered by the specific categories.

TABLE 4

SUMMARY OF SURVEY RESPONSES: OBSERVATION INSTRUMENTS

TEST	SITES				STUDENTS TESTED (TOTAL N=84)			
	Public Schools		Service Centers (N=8)	TOTAL (N=84)	Black	Anglo	Mex. Am.	
	Plan A (N=58)	Kinder. (N=18)					Eng.	Sp.
Bales Interaction Analysis	0	0	0	0				
Flanders	1	0	1	1	1	1	1	0
Indiana Cognitive Demand Schedule	0	0	0	0				
Florida Climate & Control System	0	0	0	0				
Indiana Pupil Participation Schedule	0	0	0	0				
Other*	11	2	1	14	10	11	9	5

*Additional Observation Instruments:

TEST TITLE	NUMBER OF SITES LISTING
Picture Story Language Test (Myklebust)	3
Vineland Social Maturity Scale	2
Teacher & Examiner Informal	1
Dr. E. Y. Zedler's--SWTU	1
Inter American Test of General Ability	1
Dr. Giles' Screening Instrument	1
Psychoeducational Evaluation of Preschool Children	1
Burk's Behavior Scale	1

TABLE 5

SUMMARY OF SURVEY RESPONSES TO SPECIALLY ADAPTED TESTS

SUMMARY OF SURVEY RESPONSES TO SPECIALLY ADAPTED TESTS*

TEST	SITES				USED FOR SPECIAL DIAGNOSIS IN (TOTAL N = 84)			STUDENTS (TOTAL N = 84)			
	Public Schools		Service Centers	TOTAL SITES	Special Centers	Access System	Preschool	Black	Anglo	Mexican American	
	Plan A (N=38)	Kindergarten (N=18)	(N=8)	(N=84)						English	Spanish
INITIAL SCREENING MEASURES											
General	23	4	1	28	11	40	23	17	20	21	16
Social	23	4	2	29	13	39	8	15	28	13	11
Intellectual	27	3	3	33	10	47	14	18	21	19	13
Visual	29	3	3	33	18	54	8	21	24	22	13
Auditory	28	4	3	35	19	54	9	21	24	24	13
Motor	31	2	2	35	13	39	20	20	23	20	12
Other*	10	0	0	10	4	12	6	6	7	6	3
TEST INSTRUMENTS											
Receptive Processes (visual, audicory, tactile, etc.)	25	3	4	32	19	52	9	17	21	20	18
Expressive Processes (oral language, motor response, etc.)	22	2	3	27	17	41	9	17	20	16	14
Central Processes (memory, association, analysis, etc.)	20	1	2	23	16	39	9	17	20	16	11
Other*	3	0	1	6	4	11	0	4	4	4	3
OBSERVATION INSTRUMENTS											
Pupil Behavior	28	2	3	33	10	50	9	18	22	19	10
Teacher Behavior	12	1	0	12	2	20	1	7	9	6	3
Other*	6	0	0	6	2	4	4	3	3	2	2

*NOTE: On the following page is a list of additional tests reported by the sites.

ADDITIONAL SPECIALLY ADAPTED TESTS

(see Table 5)

TEST TITLE

Initial Screening Measures

TOBE

Auditory Test for Language Comprehension (Carrow)

Purdue Perceptual-Motor Survey (Kephart)

Denver Developmental Screening Test

Locally developed scales--12 sites

Test Instruments

Locally developed scales--3 sites

Observation Instruments

Psychoeducational Inventory of Basic Learning Abilities

Purdue Perceptual-Motor Survey (Kephart)

Table 5 also shows the results of the survey of innovative tests. Here again, Plan A schools developed or adapted many more tests than did the public kindergartens and a higher percentage than did the service centers. A large majority were designed for use throughout the system. As was the case with the other types of tests, more were used with Mexican Americans than with Blacks or Anglos, who received an almost equal number. Again, the Mexican American students were tested in English more than in Spanish, although a larger percentage were administered tests in Spanish in this category than in the categories comprised of standard tests. While definite conclusions cannot be drawn from this sample, it is possible that one of the reasons for adapting tests was to translate or revise them into Spanish, giving native Spanish-speaking children a greater opportunity for a fair evaluation.

Specially Adapted Observation Instruments

The number and types of specially adapted or designed observation instruments are shown in Table 5. More instruments--over twice as many--were devised to assess pupil behavior than teacher behavior. Approximately half of the Plan A schools reported the development of pupil behavior instruments, while only one-tenth of the kindergartens and one-third of the service centers revealed concern in this area.

It is obvious from this survey that testing of Mexican American children in Spanish was not a consistently followed procedure during the 1974 school year, the time during which this survey was conducted. It remains to be seen whether the more recent information and articles on the effect of language of administration on test results and recognition of cultural bias in testing, legislation, funding requirements, or lawsuits will change this pattern.

TEST REFERENCE LIST

ARTHUR POINT SCALE OF PERFORMANCE TESTS

Grace Arthur, Psychological Corporation--Revised Form II, 1947; Form I, 1925-43

Two forms of tests exist. Form I is not being distributed. Form II (revised) provides for measurement of the abilities of deaf children, children who have reading disabilities, children who have speech problems, and non-English-speaking children. Standardization is based on children from 5 to 15 years of age.

CALDWELL PRESCHOOL INVENTORY

Bettye M. Caldwell, Educational Testing Service, 1968, 1970 (Ages 3-6)

The instrument is designed as a brief assessment and screening procedure (for use with children ages 3-6). It is to be administered individually. The test was designed to measure achievement in areas that are regarded as necessary for success in school. Another aim of the test is to determine the extent of disadvantage a child from a deprived background may have.

CALIFORNIA TEST OF MENTAL MATURITY

E. T. Sullivan, W. W. Clark, E. W. Tiegs, California Test Bureau, 1963 (K-1, Adult)

The test is designed to provide a measurement of general intelligence. It is divided into seven areas: logical reasoning, verbal concepts, memory, language, nonlanguage, spatial relationships, and numerical reasoning.

DENVER DEVELOPMENTAL SCREENING TEST

William K. Frankenburg, Josiah P. Dodds, University of Colorado Medical Center, 1966, 1970 (Infants and Preschool Children)

The instrument is designed to identify "children with serious developmental delays." The test measures four aspects of functioning: gross motor, fine motor (use of hands, seeing, nonverbal problems), language (hearing, talking), and personal-social (including self-care and relations with others).

DETROIT TESTS OF LEARNING APTITUDE

Harry J. Baker, Bernice Leland, Test Division of Bobbs-Merrill Company, 1935, 1959, 1967 (ages 3 - Adult)

This is a general intelligence test. Strengths and weaknesses in psychological constitution are investigated in the following areas: pictorial absurdities, verbal absurdities, pictorial opposites, verbal opposites, motor speed and precision, auditory attention span, oral commissions, social adjustment A, visual attention span, orientation, free association, memory for designs, number ability, social adjustment B, broken pictures, oral directions, and likenesses and differences.

FROSTIG DEVELOPMENTAL TEST OF VISUAL PERCEPTION

Marianne Frostig, Welty Lefever, John R.B. Whittlesey, Consulting Psychologists Press, 1963 (standardization); screening device (Ages 3-8); clinical device (Ages 8 - Adult)

This test was developed to test children whose perceptual abilities are below the normal perceptual abilities. The test is also designed to pinpoint the age at which perceptual abilities develop, and can be used to predict reading success in primary grades and possible problems in perceptual areas.

FULL-RANGE PICTURE VOCABULARY TEST (AMMONS)

Robert B. Ammons, Helen S. Ammons, Psychological Test Specialists, 1948, (Ages 2 - Adult).

This test is essentially nonverbal. The test is designed in picture form. The individual is shown several pictures and asked to choose the one that best illustrates the meaning of a particular word. Words used range in difficulty from 50% passing at 2 years old to words too difficult for average adults.

GESELL DEVELOPMENTAL SCHEDULES

Arnold Gesell and others, Psychological Corporation, 1925-49 (1940 Series), (Ages 4 weeks to 6 years)

This instrument provides measures of motor development, adaptive behavior, language development, and personal-social behavior.

NEBRASKA TEST OF LEARNING APTITUDE (HISKEY-NEBRASKA)

Marshall S. Hiskey (Marshall S. Hiskey, Publisher), 1941-1966 (Ages 3-17)

This test was originally designed as an intelligence test for those with auditory problems (ranging from small hearing deficiencies to those who are totally deaf); it is nonverbal. After the test is given, an age equivalent is obtained. Hiskey calls this "age" the "learning age" of the child.

ILLINOIS TEST OF PSYCHOLINGUISTIC ABILITIES (ITPA)

James J. McCarthy, Samuel A. Kirk, University of Illinois Press, 1961, 1963, 1968 (Ages 2.4 - 10.3)

This test was developed to identify the psycholinguistic abilities and disabilities of children (preschool and school age).

LEITER INTERNATIONAL PERFORMANCE SCALE

R. G. Leiter, Psychological Service Center, 1948, 1950, 1959 (Ages 2-12)

This test may be administered by pantomime. It is nonverbal.

MINNESOTA PRESCHOOL SCALE

Goodenough, Maurer, Van Wagenen, American Guidance Service, Inc., 1940 (Ages 1 1/2 - 6).

The test is designed to provide an estimate of verbal and nonverbal intelligence. Intelligence estimates are given as early as 18 months.

PEABODY PICTURE VOCABULARY TEST (PPVT)

Lloyd M. Dunn, American Guidance Service, Inc., 1954, 1959 (Ages 2.5 - 18)

Examiner gives the subject a stimulus word; subject is then to indicate which of several pictures best illustrates the meaning of the word. Scores may be interpreted in three ways: percentile rank, mental age, or standard deviation of 15.

PRESCHOOL ATTAINMENT RECORD (PAR)

Edgar A. Doll (Edgar A. Doll, Distributor), 1966 (Research Edition)

(Ages 6 months - 7 years)

This test provides an assessment of physical, social, and intellectual functions of young children. Comparisons can be made on a child-to-child basis (different administrations of the test). Author cites special usefulness for children with language difficulties (those children who resist examination or who have cultural differences).

COLOURED PROGRESSIVE MATRICES

Raven, Psychological Corporation (U.S. Distributor), 1947, 1956 (Ages 5-11)

Individual administration (Ages 5-8).

SLOSSON INTELLIGENCE TEST

Richard L. Slosson, Slosson Educational Publications, 1963 (Ages 1 month - Adult).

This test is partly based on items taken from Stanford-Binet Intelligence Scale and Gesell Developmental Schedules, and is designed to give an evaluation of the subject's mental ability.

STANFORD-BINET INTELLIGENCE SCALE

Lewis M. Terman, Maud A. Merrill, Houghton-Mifflin Company, 1960 (3rd revision) (Ages 2 - Adult).

This test is designed to measure general intelligence. The test is organized by age levels. Questions are arranged in ascending difficulty.

TESTS OF BASIC EXPERIENCES (TOBE)

Margaret H. Moss, McGraw-Hill, 1970 (Grades K-1)

The TOBE is divided into five major areas: mathematics, language, science, social studies, and general concepts. The test is designed to be used as a gross measure of a child's experiences and familiarity with various concepts.

VALETT DEVELOPMENTAL SURVEY OF BASIC LEARNING ABILITIES

Robert E. Valett, Consulting Psychologists Press, Inc. (Ages 2-7)

This diagnostic tool is designed to evaluate the developmental status of children, ages 2-7. Survey is helpful in determining whether or not additional diagnostic evaluation is indicated.

WECHSLER PRESCHOOL AND PRIMARY SCALE OF INTELLIGENCE (WPPSI)

David Wechsler, The Psychological Corporation, 1963, 1967 (Ages 4-6 1/2).

The purpose of the test is to appraise the potentialities of the 4- to 6-year-old child. It is an extension of the WISC, following the same theoretical approaches.