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ABSTRACT

This teaching module offers participants the requisite skills and professional perspective to determine the language dominance of Spanish-language-origin students. Upon completion of this module, participants should be able to (a) identify and describe an example of at least three techniques for determining the language dominance of Spanish-language-origin students, (b) list at least one important disadvantage and one important advantage for each of the three techniques selected, and (c) appropriately administer and interpret the results for each of the selected techniques so as to effectively and efficiently determine the language dominance of Spanish-language-origin students in the primary grades. Participants complete a preassessment test, choose tasks from a list of learning activities, and conclude the module with a postassessment test. (An excerpt from "TESOL Quarterly" entitled "A Method for Determining and Depicting Language Dominance," an article entitled "The Why's and Ways of Testing Bilinguality before Teaching Bilingually," and a bibliography are included.)
(PB)

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TEACHER CORPS BILINGUAL PROJECT
UNIVERSITY OF HARTFORD
WEST HARTFORD, CONNECTICUT

DR. PERRY A. ZIRKEL, DIRECTOR

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MODULAR SEQUENCE:
TEACHING READING TO
BILINGUAL LEARNERS

TTP 002.02 TECHNIQUES FOR
DETERMINING LANGUAGE DOMINANCE

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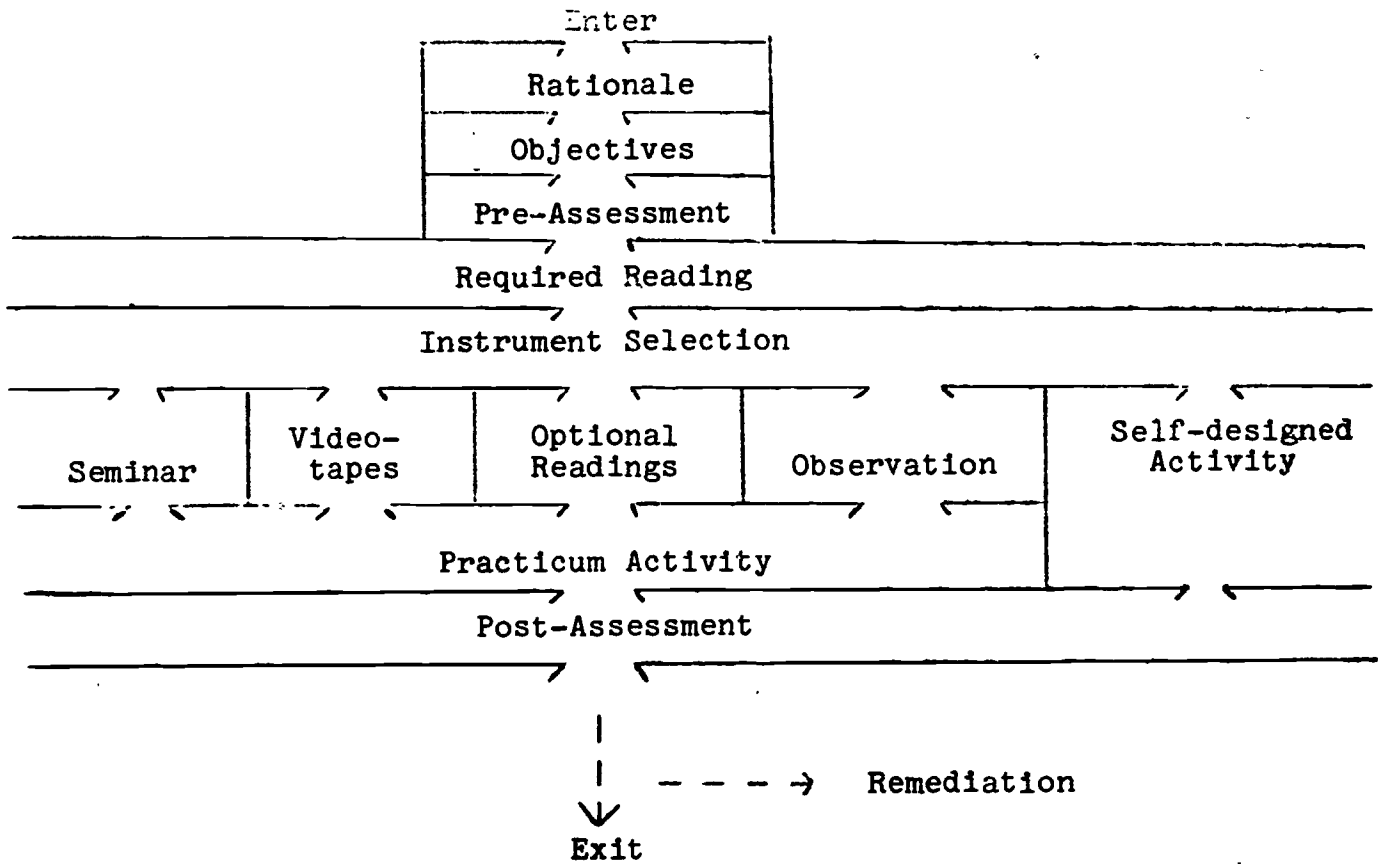
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COLLEGE OF EDUCATION
UNIVERSITY OF HARTFORD
WEST HARTFORD, CONNECTICUT

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TECHNIQUES FOR DETERMINING LANGUAGE DOMINANCE



RATIONALE

After years of labelling and treating Spanish-language-origin students as "non-English-speaking," many of our public schools have gone to the other extreme by assuming that a bilingual approach which uses Spanish as the medium for instruction is appropriate for all such students. Thus, in erasing a disadvantage for some Spanish-language-origin children, the schools have created one for others.

A reading program for Spanish-language-origin students should offer the vernacular approach as one, but not the only, route to reading in English. The key factor for bilingual programs generally and vernacular reading programs specifically is to determine whether such students are Spanish-dominant or English-dominant; i.e., whether they are more proficient with respect to aural-oral abilities in Spanish or English. This unit of work offers the participant the requisite skills and professional perspective to determine the language dominance of Spanish-language-origin students.

OBJECTIVES

Given a series of learning activities on language-dominance testing techniques, the participant will be able to:

- identify and describe an example of at least three techniques for determining the language dominance of Spanish-language-origin students
- list at least one important disadvantage and one important advantage for each of the three techniques selected
- appropriately administer and interpret the results for each of the selected techniques so as to effectively and efficiently determine the language dominance of Spanish-language-origin students in the primary grades

PRE-ASSESSMENT

1. Identify and describe at least three techniques of determining the language dominance of Spanish-language-origin students.
2. List at least one major disadvantage and advantage for each technique that you selected.
3. Use the selected techniques with randomly selected Spanish-language students and interpret their results in terms of placement in a linguistically appropriate instructional grouping.

LEARNING ACTIVITIES

A. Read:

Mackey, W. F. "How Can Bilingualism be Described and Measured." (Appendix I)

Zirkel, P. "The Why's and Ways of Testing Bilinguality Before Teaching Bilingually." (Appendix II)

- B. Select two of the techniques in addition to the rating scale from the list on the next two pages. Examine carefully the example rating scale instruments (pp. 11-15) and those corresponding to the techniques that you have selected. Also examine any of the optional readings or instruments that you wish (listed on pages 8-10).
- C. Secure two Spanish-language-origin children, preferably in the primary grades. Ascertain the dominance rating from the child's teacher according to the rating scale on the top of the enclosed data sheet. Administer to each of the children the instruments that you have selected and studied. Give them in the order they are listed on the data sheet on pp. 57-58, except do rating scale last. After reading the excerpt which follows on pp. 53-56, plot each child's results on the graph found on his/her data sheet, and list your comments regarding the relative merits and limitations of each instrument and your recommendations regarding the proper placement of each child.

TECHNIQUES/INSTRUMENTS

AURAL

ORAL

1. Rating Scales

Example

New York City's (Morrison, et al., 1959) Scales B¹ and B²: For Rating Pupil's Ability to Understand Spoken English/Spanish (B² added)

New York City's (Morrison, et al., 1959) Scales A¹ and A²: For Rating Pupil's Ability to Speak English/Spanish (A² added)

Others

Zirkel's (1974) "Bilingual Dominance Continuum"

Dalley's (1968) Language Facility Test

New York City's (Polemeni, et al., 1974) Rating Scale of Pupil's Ability to Speak English/Spanish (prototype version)

Whittier College (Canedo, et al., 1970) "Performance Scale"

2. Interview Schedules

Example

Whittier College (Canedo, et al., 1970) "Social Dominance Scale" (modified)

Others

Hoffman's (1934) Bilingual Background Schedule and Zirkel's (1973) revision

Skoczylas' (1974) Home Bilingual Usage Estimate

Spolsky & Murphy's (1972) "Home Use" subtest

3. Indirect Measures

Example

Spolsky & Murphy's (1972) "Word Availability" subtest (modified)

Others

Cooper's (1969) word naming and word association tasks

Cooper, et al. (1969) taped stories technique

Lambert's (1955, 1959) reaction time technique

4. Parallel Tests

Examples

Manuel's (1967) "Oral Vocabulary" subtest of Inter-American Tests of General Ability, Level I

James' (1974) "Spanish Production" and "English Production" subtests

Others

Carrow's (1973) Screening Test for Auditory Comprehension of Language

Burt's (1974) Bilingual Syntax Measure

Cervenka's (1968) "Comprehension of Commands and Directions" subtest

Critchlow's (1974) Dos Amigos Verbal Language Scales

James' (1974) "Spanish Comprehension" and English Comprehension" subtests

Day's Language Screen (Baldonado, 1974)

Shutt's (1974) "Oral Comprehension" subtest in Spanish/English

OPTIONAL READINGS/INSTRUMENT CITATIONS

1. Rating Scales

Dailey, J. Language facility test. Alexandria, VA: Allington Corp., 1968.

Morrison, J. C., et al. Developing a program for testing Puerto Rican pupils in New York City public schools: Puerto Rican Study research report. New York City: Board of Education, 1959.

Polemeni, A., et al. Rating scale of pupils' ability to speak English. New York City: Board of Education, 1974.

Zirkel, P. A method for determining and depicting language dominance. TESOL Quarterly, 1974, 8, 7-16.

2. Interview Schedules

Canedo, F., et al. Language dominance criteria. Mimeographed manuscript, Whittier College, Whittier, Cal., 1970.

Hoffman, M. N. The measurement of bilingual background. New York: Columbia University, 1934.

Skoczylas, R. Home bilingual usage estimate. Copywritten instrument, Gilroy, Cal., 1971.

Spolsky, B., et al. Three functional tests of language proficiency. TESOL Quarterly, 1972, 6, 221-235.

Zirkel, P. A sociolinguistic survey of Puerto Rican parents. Paper presented at the annual meeting of the American Orthopsychiatric Association, New York City, May 1973. ERIC ED 074 191.

3. Indirect Measures

Cooper, R. Two contextualized measures of degree of bilingualism. Modern Language Journal, 1969, 53, 172-178.

Cooper, R., et al. Listening comprehension in a bilingual community. Modern Language Journal, 1969, 53, 235-241.

Lambert, W., et al. Linguistic manifestations of bilingualism. American Journal of Psychology, 1959, 72, 77-82.

Lambert, W. The measurement of the linguistic dominance of bilinguals. Journal of Abnormal and Social Psychology, 1955, 50, 197-200.

Spolsky, B., et al. Three functional tests of language proficiency. TESOL Quarterly, 1972, 6, 221-235.

4. Parallel Tests

Baldonado, L. Developing language competence in children from Spanish language backgrounds: An analysis of an oral language field test through oral language assessment instruments. Doctoral dissertation at the University of Massachusetts, 1974.

Burt, M., et al. Bilingual syntax measure. New York: Harcourt, Brace, Jovanovich, 1974.

Carrow, E. Screening test for auditory comprehension of language. Austin, Texas: Learning Concepts, 1973.

Cervenka, E. Final report on Head Start evaluation and research, 1966-67. Austin: University of Texas Child Development Evaluation and Research Center, 1967. ERIC ED 019 122.

Critchlow, D. Dos amigos verbal language scales. San Rafael, California: Academy Therapy Pub., 1974.

Greene, J., and Zirkel, P. The validation of parallel testing of aural ability as an indicator of bilingual dominance. Psychology in the Schools, 1974, 11, 153-157.

James, P. James language dominance test. Austin, Texas: Learning Concepts, 1974.

Manuel, H. Manual: Tests of general ability and inter-American series; forms CE, DE, CES, DES. Austin, Texas: Guidance Testing Associates, 1967.

O'Neill, I., et al. The effect of visual format upon the test performance of Spanish-speaking students. Paper presented at the annual meeting of the American Psychological Association, Chicago, September 1975.

Shutt, D. Shutt primary language indicator. Phoenix, Arizona: Citizen's Press, 1974.

Zirkel, P., and Greene, J. The use of parallel testing of aural ability as an indicator of bilingual dominance. Psychology in the Schools, 1974, 2, 51-55.

1. RATING SCALES

Ex. New York City's Scales A¹, A² and B¹, B²
for Rating Pupil's Abilities to Speak and
Understand English and Spanish (A² and B² added)

(Morrison, et al., 1959)

2. INTERVIEW SCHEDULES

Ex. Whittier College "Social Dominance Scale" (modified)
(Canedo, et al., 1970)

3. INDIRECT MEASURES

Ex. "Word Availability" subtest (modified)
(Spolsky, et al., 1972)

4. PARALLEL TESTS

Ex. "Oral Vocabulary" Subtest of Inter-American
Test of General Abilities, Level I, Forms DES
and CE (spaced version)

(Manuel, 1967)

EXCERPT FROM:

P. Zirkel. A method for determining and depicting language dominance. TESOL Quarterly, 1974, 8, 7-16.

TESOL QUARTERLY

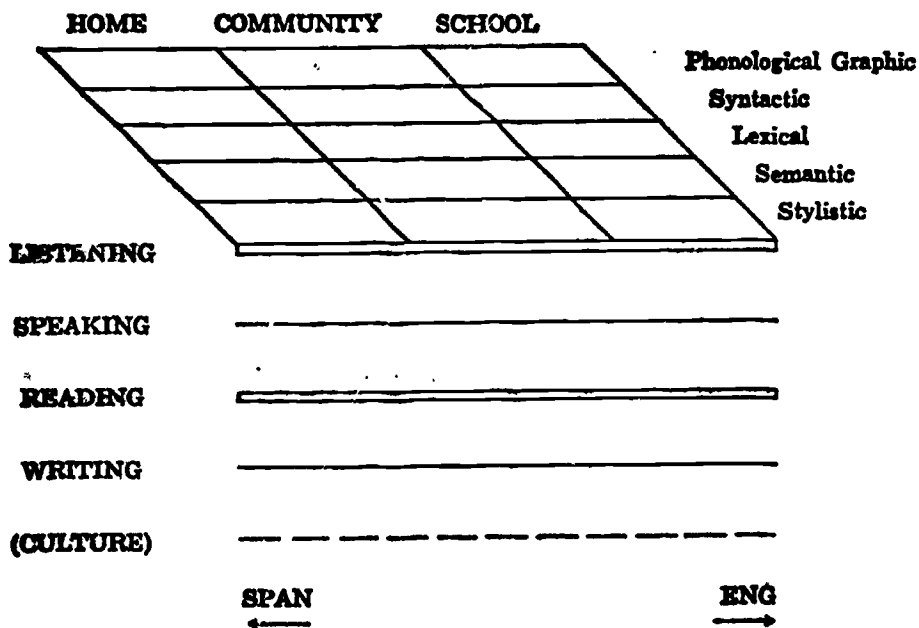


Figure 1. Representation of Bilingual Dominance Matrix

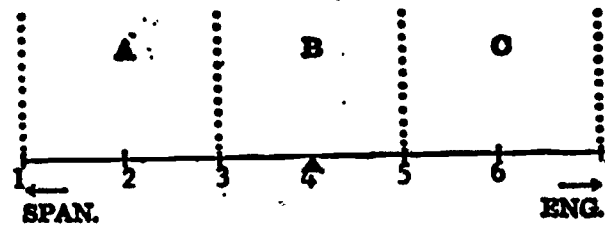
Depicting Bilingual Dominance

Graphic depictions will be utilized (1) to review the preceding discussion regarding the definition and determination of bilingual dominance, as well as (2) to illustrate its application for the purpose of pupil placement in establishing a Spanish-English bilingual program on the elementary school level.

The schematic diagram in Figure 1 summarizes the matrix-like formulation of bilingualism which serves as the conceptual context for the determination and depiction of language dominance. The four basic language skills and the cultural substratum are represented as a series of continua which are interrelated to the sociolinguistic domains and linguistic levels within a three-dimensional matrix. Each continuum can be constituted of quantifiable units in Spanish and English depending upon the dominance measure that is utilized. Each dimension could be further analyzed and segmented (e.g., listening skill into comprehension and phonetic discrimination; speaking skill into pronunciation, intonation, etc.). However, the figure serves to indicate the complex context that constitutes bilingualism.

Bearing in mind the complicated and comprehensive nature of this dual language matrix, the reader is asked to focus on the basic building block of aural ability, labelled in the preceding diagram as "listening." This simplified segment may be visualized, as illustrated in Figure 2, in the form of a continuum bounded by Spanish and English monolingualism and bisected

LANGUAGE DOMINANCE



- A. SPANISH-DOMINANT
- B. TRANSITIONAL
- C. ENGLISH-DOMINANT
- A EQUILINGUAL (or balanced bilingual)

Figure 2. Representation of Bilingual Dominance Continuum:
Aural Ability

by the relatively limited area of equilingualism, or balanced bilingualism.²⁹ Such a conceptualization yields a placement of pupils into three categories typical of bilingual programs: "Spanish-dominant," "English-dominant" and, for the lack of a better term, "Transitional" pupils.³⁰ Further, this schema can serve as the basis for a rating scale according to relative competency, as exemplified below:

- Ex. I.
1. Pupil understands only Spanish.
 2. Pupil understands spoken Spanish much better than English
 3. Pupil understands spoken Spanish a little better than English
 4. Pupil understands spoken Spanish and English equally well
 5. Pupil understands spoken English a little better than Spanish
 6. Pupil understands spoken English much better than Spanish
 7. Pupil understands only English.

Similarly, discrepancy scores of parallel tests of English and Spanish can be utilized to form these three programmatic categories. Taking the aforementioned example of the level I Inter-American Oral Vocabulary subtest, which consists of 25 items in both alternate Spanish and English forms, a difference score of six points could be used with 95 per cent level of probability to demarcate the three dominance categories. However, as the following example reveals, such a one-dimensional conceptualization obscures absolute proficiency levels within each language while it clarifies relative proficiency levels:

²⁹ It should be realized that the precise points of such divisions are arbitrary, not absolute.

³⁰ Given the prevailing attitude of our society, the direction of the transition seems clear. The typical questions asked of such programs is: "When will you get your pupils into the mainstream?"

TESOL QUARTERLY

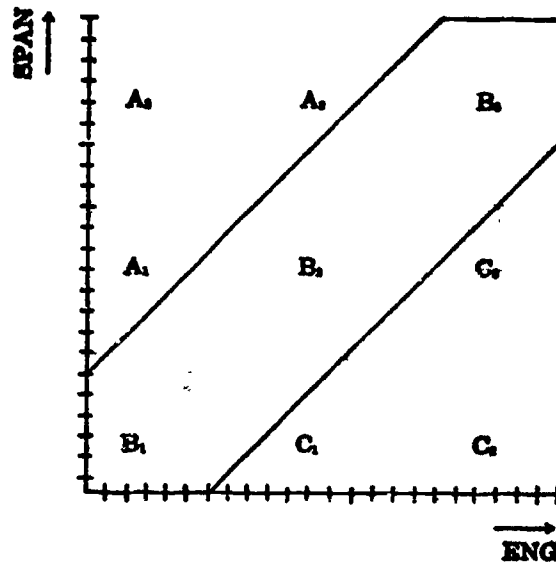


Figure 3. Depiction of Aural Bilingual Dominance: Sample Chart

Ex. II. Results of First Grade Sample on Parallel O.V. Subtest

Pupil	Spanish Score	English Score	Difference Score	Dominance Category
1. Adolfo Jimenez	14	12	+ 2	B
2. Maria Requena	13	5	+ 8	A
3. Alberto Hernandez	6	16	-10	C
4. Cesar Cruz	7	6	+ 1	B
5. Juanita Pizarro	25	17	+ 8	A
6. Etc.				

By means of this categorization pupils 1 and 4 are placed in one dominance grouping (viz., a transitional class); pupils 2 and 5 are placed in another group (viz., a Spanish-dominant class); and pupil 3 in a third. Yet in terms of aural ability within English, pupils 2 and 4 appear to be at similar proficiency levels, as do pupils 3 and 5. In a like manner, an examination of the Spanish scores reveals a wide disparity in aural ability levels between the pupils (#2 and 5) placed in the Spanish-dominant class.

A culminating conception of aural language dominance, which corresponds in scale to the aforementioned instrument, is given in Figure 3. Figure 3 can be formed by simply swinging the left side of Figure 2 up to form a vertical axis. This two-dimensional conception remains relatively simple, but yields a more systematic categorization of dominance groupings according to absolute as well as relative proficiency. Thus, each dominance

LANGUAGE DOMINANCE

category can be broken into subgroups (e.g., A₁, A₂, A₃). By plotting the dominance scores of a sizeable sample of students, dominance clusters will appear which can then be instructed according to the goal of the program.

Pupils in group B₃ for example, might receive content instruction 50 percent in each language in a "true" bilingual program, which aims at full-bilingualism for all participants. Pupils in group C₂ in the same program might initially receive instruction 35% in Spanish and 65% in English on their way to sharing the 50-50 Spanish-English class. However, in a "transitional" bilingual program, the pupils in B₂ and C₂ (and C₃) might be placed together in "regular" monolingual-English classes. The more critical decision would pertain to groups A₁, B₁, and C₁. Whether they should initially be instructed in an intensive English, intensive Spanish or 50-50 program would depend upon the goals of the program (viz., irredentism, maintenance, assimilation) as well as its scope and length. It would appear clear with respect to group B₁, and probable with respect to groups A₁ and C₁ that reading should be postponed until the completion of an intensive readiness program emphasizing Spanish or English. Initial reading instruction in Spanish for appropriate groupings (e.g., A₃) would appear to be an effective building block, along with ESL to reading in English. However, simultaneous reading instruction in Spanish and English presents interference problems which might only be readily surmounted by group B₃. Another illustration of the applications of this method of determining and depicting language dominance is formed by plotting the parallel testing scores of the five pupils listed in Example II (see Figure 4).

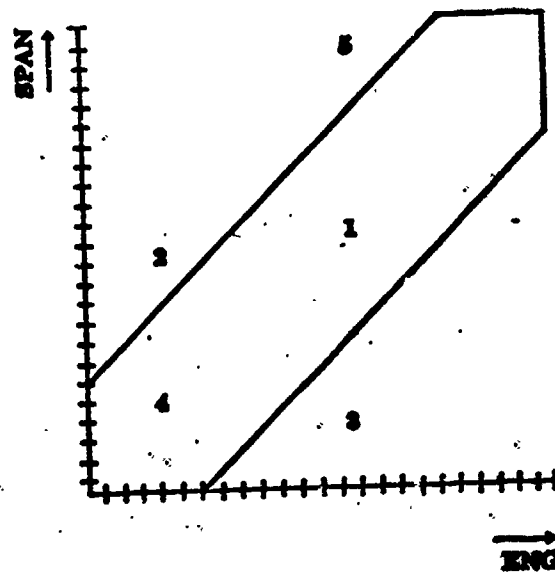


Figure 4. Illustration of Results of First-Grade Sample on Parallel Oral Vocabulary Subject (Ex. II)

Comments regarding relative merits and limitations of each instrument:

A. Interview schedule: _____

B. Indirect measure: _____

C. Parallel testing: _____

D. Rating scales (2): _____

Your recommendations regarding proper placement: _____

DATA SHEET

Examinee's name _____

Examiner's name _____

Examinee's grade _____

Date _____

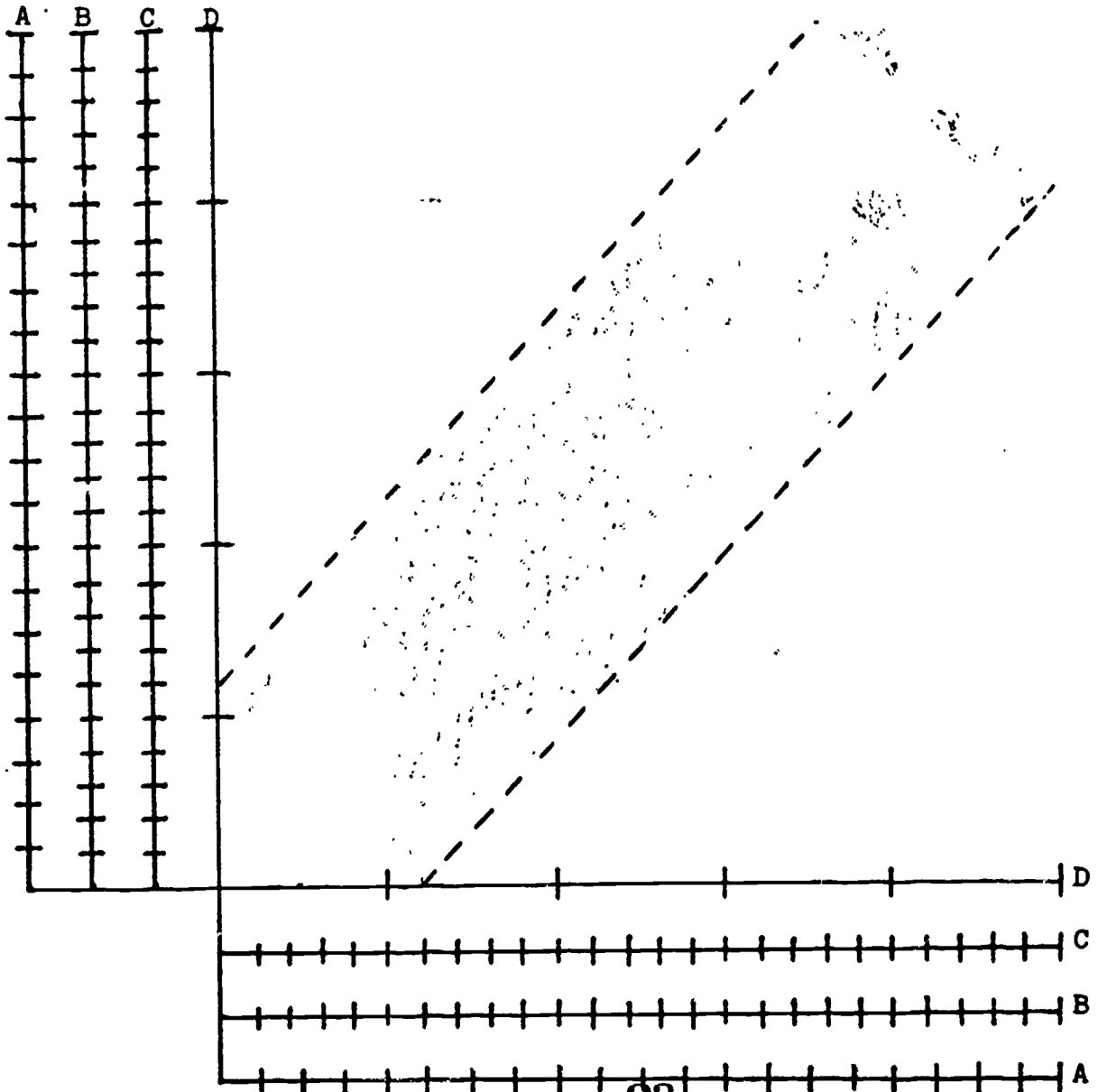
Ratings by child's teacher (circle one number):

Spanish Monolingual	Spanish Dominant	Equi- Lingual	English Dominant	English Monolingual
1	2	3	4	5
				6
				7

Results for each of the instruments employed (plot and label points with appropriate letter):

- A Interview schedule (0-20 in each language)
- B Indirect measure (0-25 in each language)
- C Parallel testing (0-25 in each language)
- D Rating scale (0-5 in each language)

*After plotting the three coded points, connect items with a solid line and place a star at the point on the graph indicating your final or overall judgment.



Comments regarding relative merits and limitations of each instrument:

A. Interview schedule: _____

B. Indirect measure: _____

C. Parallel testing: _____

D. Rating scales (2): _____

Your recommendations regarding proper placement: _____

DATA SHEET

Examinee's name _____

Examiner's name _____

Examinee's grade _____

Date _____

Ratings by child's teacher (circle one number):

Spanish
Monolingual

Spanish
Dominant

Equi-
Lingual

English
Dominant

English
Monolingual

1

2

3

4

5

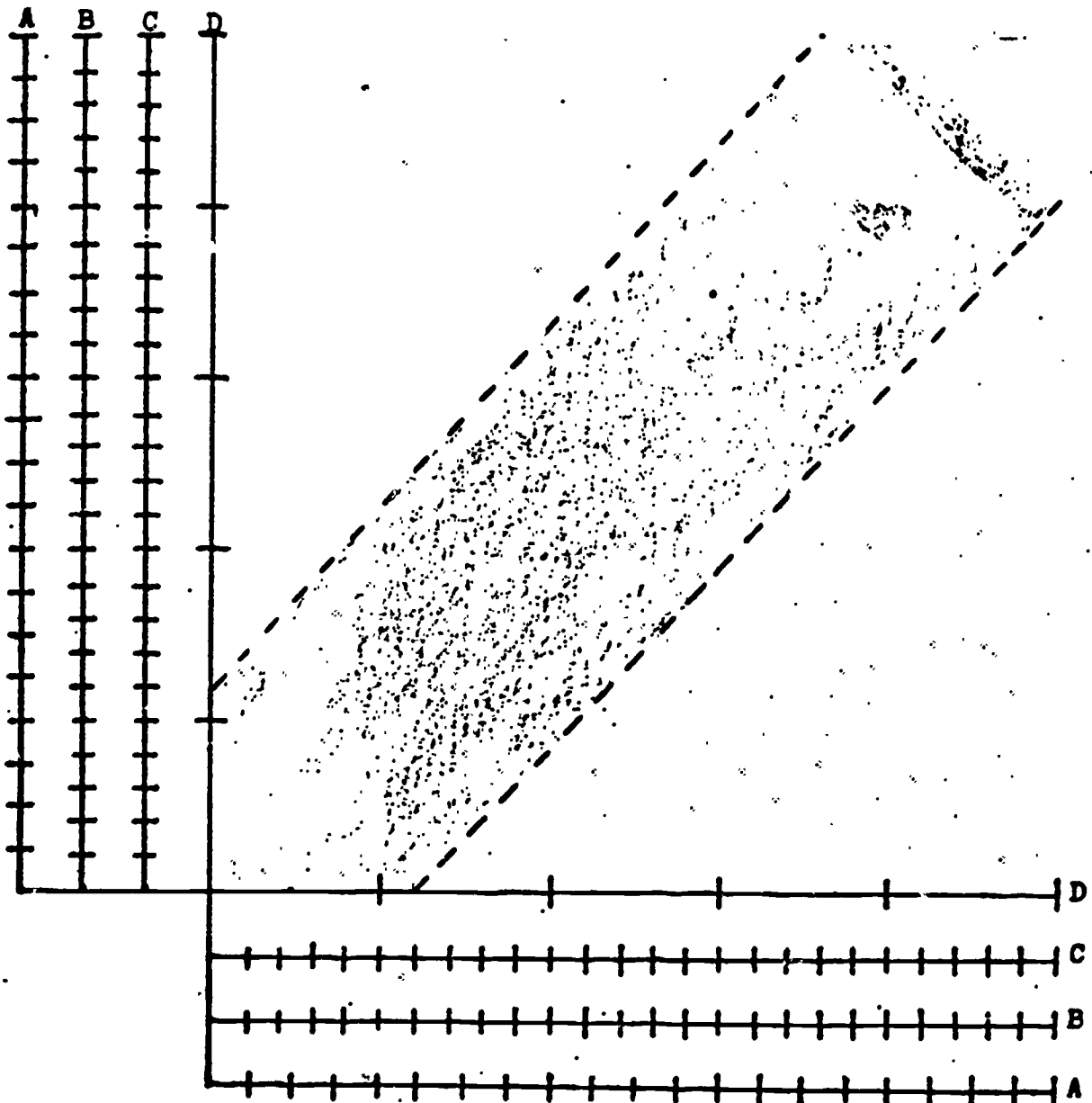
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Results for each of the instruments employed (plot and label points with appropriate letter):

- A Interview schedule (0-20 in each language)
- B Indirect measure (0-25 in each language)
- C Parallel testing (0-25 in each language)
- D Rating scale (0-5 in each language)

*After plotting the three coded points, connect items with a solid line and place a star at the point on the graph indicating your final or overall judgment.



Comments regarding relative merits and limitations of each instrument:

A. Interview schedule: _____

B. Indirect measure: _____

C. Parallel testing: _____

D. Rating scales (2): _____

Your recommendations regarding proper placement: _____

POST-ASSESSMENT

1. Identify and describe at least three techniques of determining the language dominance of Spanish-language-origin students.
2. List at least one major disadvantage and advantage for each technique that you selected.
3. Use the selected techniques with randomly selected Spanish-language students and interpret their results in terms of placement in a linguistically appropriate instructional grouping.

Competency will be certified when the module coordinator has ascertained that the submitted post-assessment is of acceptable quality.

Remediation: Alternate learning activities are available on a contractual basis with the module coordinator.

APPENDIX II

THE WHY'S AND WAYS OF TESTING BILINGUALITY
BEFORE TEACHING BILINGUALLY

Perry A. Zirkel
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THE WHY'S AND WAYS OF TESTING BILINGUALITY
BEFORE TEACHING BILINGUALLY

Perry A. Zirkel
University of Hartford

Until recent years, the treatment of Spanish-speaking students in American public schools can only be described as neglect and negation (Kobrick, 1972; Rodriguez, 1974). The cultural and linguistic background of the sizeable concentrations of Puerto Rican pupils in the Northeast, Cuban pupils in the Southeast, and Mexican-American pupils in the Southwest has been buried at the schoolhouse door with the heritage of other linguistic minorities under labels like "non-English," "other," and "disadvantaged."

The plight of such students first gained widespread recognition in the mid-sixties in educational surveys like the Coleman Report (1965). Formally titled Equality of Educational Opportunity, this report found vast inequalities of educational opportunity in America's public schools. The most profound disparities in educational achievement, academic self-concept, and drop-out figures were revealed to exist for Mexican-American, Puerto Rican and other linguistically different learners.

Teaching Bilingually

The resulting pedagogical and political awakening has caused a rebirth of bilingual/bicultural programs, which are aimed at using the native language and culture of such students as an asset, rather than a disadvantage, to scholastic success (Andersson and Boyer, 1970; Saville and Troike, 1971). Such programs typically provide for 1) subject matter instruction in the native language; 2) aural-oral instruction in English as a Second Language (ESL); and 3) cultural enhancement activities. Increasing infusions of federal funds from such sources as Titles I, III, VII, VIII of the Elementary and Secondary Education Act (ESEA) have been utilized, in addition to state and local monies, to stimulate and support such programs. Title VII of ESEA, known as the Bilingual Education Act, alone accounts for over 300 bilingual programs (Bhaerman, 1974). The vast majority of such programs serve Spanish-speaking students at the elementary school level (John and Horner, 1971).

Recent developments in statutory and case law have not only accommodated, but in some cases mandated such a shift in approach (Grubb, 1974). Statutes permitting or encouraging bilingual programs have been passed in 17 states. Massachusetts, Alaska and Michigan have gone further by adopting laws mandating bilingual programs for non-English-speaking students. The recent U.S. Supreme Court decision of Lau v. Nichols (1974) points in the same direction. Based on Lau, the New

York City Board of Education recently signed a court-enforced consent decree mandating the bilingual testing and teaching of a vast number of Spanish-origin students (Aspira, 1974). Other cases involving Spanish-speaking students (ex. Diana v. California State Education Department, 1970) have decried the misplacement of such students into classes for the mentally retarded based on IQ testing in English and have ordered bilingual testing instruments and procedures.

Testing Bilinguality

A fatal flaw in many bilingual programs lies in the linguistic identification of pupils at the critical point of the planning and placement process. Planning or needs assessment sections of federal funding forms for bilingual program proposals which originally only required the number of non-English or limited-English speaking students, have come to require these figures in terms of language dominance (see Guidelines, 1974). Further, the organizational structure of many programs is based on placement or grouping according to language dominance (LaFontaine and Pagan, 1969). Yet a majority of bilingual programs do not take systematic steps to determine language dominance (Shore, 1974).

The root problem lies in a general confusion regarding the functional meaning of bilingualism in the school context (Kanoon, 1974). Many practitioners take an educationally and

economically elitist view of bilingualism, requiring the narrow scope of complete mastery and literacy in two languages. Leaders in linguistics (e.g., Gaarder, 1965), however, point out that complete mastery of two languages, more appropriately termed "equilingualism," is a very rare phenomenon. Moreover, differential educational opportunities with regard to learning to read in each language negate the utility of a literacy requirement. Rather, a conception of bilingualism as a broad continuum of aural-oral proficiency in both languages is a useful basis for planning and placement purposes (Zirkel, 1972).*

Surname Surveys

Given this need and basis for definition, language dominance emerges as a critical factor. A common means of identifying Spanish-dominant pupils has historically been by surname surveys. Despite recent advances in the number and sophistication of bilingual projects, a substantial number of projects persist in this practice (Shore, 1974). This procedure runs the risk of gross imprecision by treating pupils of Hispanic origin as all being Spanish-dominant rather than non-English speaking (Hittinger, 1969). In addition to the imprecision of surname labeling due to such factors as "mixed" marriages (ex. "Anglo" mother, Hispanic father) and Romance language patrimony (ex. "Columbani" as Italian or Spanish), this technique does not take into account intra-group linguistic

*Fishman's (1971) sociolinguistic conception of domains forms a useful part of such a conception. A child may, for example, be Spanish-dominant in the context of his home but English-dominant in the school sphere.

and cultural differences (Valdez, 1969).

Rating Scales

Rating scales are the next most frequent means of identifying such pupils in terms of language dominance. Such scales -- e.g., New York City's "Puerto Rican Scale" (Morrison, et al. 1969) -- typically call for the classification of "Spanish-language-origin" pupils (Olguin, 1969) according to aural or oral proficiency ratings by their classroom teachers. Although potentially more precise and systematic than surname surveys, this procedure is inescapably subjective. The teacher-rater's competence in each language, attitudes toward the native language and culture of the target students, and sense of job security can undoubtedly affect the rating results.

Such subjectivity is often unconscious and unintended, as exemplified by the teacher who when asked the basis for her rating of a recently arrived Puerto Rican first grader as English-dominant, sincerely explained that "Antonio, like most Puerto Ricans, is very passive and withdrawn, but when I speak to him he always responds in English." When asked what language he used with his friends and with his family, she explained she had not visited his home, because she didn't speak Spanish and felt his neighborhood was dangerous.

To control such factors, it has been suggested that specially trained bilingual examiners rate such pupils based on a systematic and uniform set of language-eliciting stimuli.

Although a promising technique, administrators have pointed out its practical constraints (e.g., time for training and testing), and teachers have pointed out its pedagogical constraints (e.g., establishing rapport with the testees). It has alternatively been suggested that students rate themselves on a pre-established scale (W. Lambert, personal communication, December 21, 1970). Although effective for older students, self-rating according to language dominance is a problematic procedure for the pupils in the primary grades, where most bilingual programs are concentrated. In this regard, the author is reminded of a Spanish-surnamed second grader who rated himself as being able to speak only English, not Spanish. When casually asked later if his parents spoke Spanish, the youngster responded without hesitation: "Sí, ellos hablan español pero yo, no." ["Yes, they speak Spanish, but I don't!"]

Interview Schedules

As an alternative to the vagaries of surname surveys and dominance rating scales, educational researchers have developed systematic interview schedules. Those interview instruments which are based solely on the relative use of both languages in the home (Hoffman, 1934; Skoczylas, 1971) are of less validity after the early grades because of the subsequent influences of the pupil's peer group, mass media, and educational experience. Those which are supplemented by direct measures of aural-oral performance (Canedo et al., 1970; Spolsky et

al., 1972) are more solid psychometrically but compound the practical problems of individually administered instruments (ex. staff, time, rapport).

Indirect Measures

Researchers in the field of psycho- and socio- linguistics have developed a host of individual and indirect measures of bilingual proficiency (see Jakobovits, 1968, 1970; Macnamara, 1967a). Such measures include word association and naming tasks (Cooper, 1969; Edelman, 1969; Ervin, 1955; Johnson, 1953; Kolers, 1968; Lambert and Moore, 1966), reaction time for picture-naming (Ervin, 1961, 1967; Lambert, 1955; Lambert et al., 1959; Macnamara, 1967b), and comprehension items based on bilingual tapes (Cooper et al., 1969). Although of theoretical interest, most of these measures have not proved practicable for educational planning and placement purposes.

Parallel Testing

One other procedure, parallel testing with alternate forms of aural-oral instruments, offers promise for such purposes (Zirkel, 1974). Based upon such considerations as linguistic equivalence, practice effect, and testing time, initial investigation with the listening comprehension section of the Inter-American Test series in Spanish and English revealed the feasibility of such a procedure (Greene and Zirkel, 1974; Zirkel and Greene, 1974). However, limitations of the Inter-American instrument in terms of spatial organization (O'Neill,

et al., 1975), difficulty range dialect differences, and scoring time suggest the desirability of developing a special instrument for planning and placement practices.

Special Instruments

Several school districts and a few publishers have recently undertaken the development of specialized language dominance instruments for use in bilingual elementary school programs. Individual bilingual programs (e.g., those in District 13 in Brooklyn, N.Y. and Abernathy, Texas) pointed the way by developing their own screening interview instruments. These local efforts lack supporting psychometric data.

Subsequent efforts have yielded commercially available instruments with at least limited psychometric data. Shutt (1974), for example, developed a pictorial screening device which comprises subtests for aural comprehension in Spanish, aural comprehension in English, and oral fluency in English. Although attractively adapted to the practical needs of bilingual programs, Shutt's instrument is limited by its small standardization sample (n=130) and the lack of validity data, especially relating to equivalence between languages. James (1974) language dominance instrument similarly provides for measures of aural and oral abilities in both languages. James' test also reflects similar limitations in terms of a small standardization sample (n=177) and, in this case, the lack of reliability data and of alternate forms between languages.

A more comprehensive effort is currently in progress as a result of the aforementioned Aspira (1974) consent decree. In this legal agreement, the New York City Board of Education committed itself to immediately developing a comprehensive classification system providing assessment of pupils' abilities in listening, speaking, reading, and writing in Spanish and in English. A pilot instrument for the speaking ability area (Polemeni et al., 1974) has already appeared, and the other measures are currently in progress.

Thus, the movement toward an effective and efficient means for testing bilinguality before teaching bilingually is currently in progress. Carried in its wake is the hope that in the near future equality of educational opportunity will be more meaningful for linguistically different pupils in our nation's elementary schools.

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