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ABSTRACT

The document reports detailed results of an analysis of special education services provided in three urban school districts in Texas to 24 limited English proficient (LEP) Hispanic students and 28 English proficient Hispanic students (grades 2 through 5) who were classified as communication disordered. The focus of the study was on data collected from student records concerning students' first special education reevaluations and their subsequent educational placement. District, federal, and state policies were also examined. Among conclusions drawn were that students' English language proficiency was emphasized at initial and triannual evaluations, even though successfully distinguishing linguistic differences from speech or language disorders requires comparison of students' dual language skills. Pragmatic skills were rarely considered. Federal, state, and local policy or administrative guidelines fail to address specific procedures for safeguarding language minority students in the identification, assessment, and placement process. Procedures used by districts when LEP students were considered for continued special education placement were essentially the same as those used for English-speaking students. Language status was given little attention by assessment personnel or placement committees. Detailed recommendations are offered in the areas of native language assessment, triannual assessments, appraisal personnel, placement committees, and recommended research. (JW)

LIMITED ENGLISH PROFICIENT AND ENGLISH PROFICIENT HISPANIC STUDENTS WITH COMMUNICATION DISORDERS: CHARACTERISTICS AT INITIAL ASSESSMENT AND AT REEVALUATION

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This is Part II of a report of a research study examining the special education reevaluation (three-year review) process as it is carried out for limited English proficient and English proficient Hispanic students enrolled in programs for the learning disabled and the speech and/or language handicapped (U. S. Department of Education, Contract No. 300-83-0272).

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INTRODUCTION

In October, 1983, the Department of Special Education, College of Education, at The University of Texas at Austin, established a Handicapped Minority Research Institute on Language Proficiency (HMRI). The Institute is funded by the United States Department of Education, Office of Special Education and Rehabilitative Services, for the purpose of conducting research specific to exceptional limited English proficient (LEP) and bilingual students (Spanish/English). The focus of Institute research is on the interaction of students' language proficiency and handicapping condition(s), specifically learning disabilities, mental retardation and communication disorders. These handicapping conditions include 90% of Hispanic students in Texas who currently receive special education services (Ortiz & Yates, 1983), a pattern consistent with national placement trends (Dew, 1984).

The HMRI research agenda includes longitudinal and cross-sectional studies designed both to describe current educational practice and to test hypotheses. The longitudinal studies focus on language assessment and intervention, while the shorter-term, cross-sectional studies focus on characteristics of exceptional Hispanic children at initial placement and three-year review, prevalence of handicapping conditions among school-aged Hispanics in Texas, academic performance of bilingual learning-disabled Hispanic students as a function of success attributions and learning strategies, effects of Spanish as the language of instruction in resource classrooms, eligibility of Hispanic students for programs for the learning disabled based on Spanish versus English assessment and cultural explanations for pre-referral classroom behavior problems.

Objectives of the Present Study

This report is Part II of a larger research study which focuses on the reevaluation (three-year review) process as it is carried out for LEP Hispanic students in three school districts in Texas. Part I examines reevaluation procedures and outcomes for a sample of learning disabled (LD) students; Part II addresses these areas for speech and language handicapped (SLH) students.

The objectives of this study were to (a) examine procedures used for assessment and placement of SLH Hispanic students during the three-year review, (b) document changes in articulation and other language characteristics which occur during SLH Hispanic students' first three years in special education, and (c) analyze current policies and practices influencing their triannual evaluation and placement. Findings were used to generate recommendations for policy, practice and research germaine to the reevaluation of limited English proficient (LEP) and English proficient (non-LEP) SLH students.

Research Questions

Referral/Initial Placement Characteristics

1. What are the reasons for referral of LEP and non-LEP SLH students?

2. Who is the primary referral agent?

3. What is the primary home language of both groups?

4. What are other initial placement characteristics of both groups?

   a. At what age are students referred?

   b. In what grade are students referred?

   c. What are students' retention histories?

The Reevaluation Assessment

1. How much time elapses between the initial assessment and the first reevaluation of LEP and non-LEP students?

2. What are the characteristics of test batteries used in the reevaluation process?

   a. Which tests are included in initial and reevaluation assessments?

   b. How many and what types of tests are included in initial and reevaluation assessment batteries? Do the number and types of tests used differ for LEPs and non-LEPs?

3. What language proficiency testing is included in reevaluations? What other language information is collected?

4. In what languages are tests administered at reevaluation? How does the language used compare to the language of administration for initial assessments?

Reevaluation Results

1. How do students perform on the Goldman-Fristoe Test of Articulation (GFTA) at reevaluation? How does this compare to their performance at initial assessment?

2. What types of speech disorders are identified at reevaluation? How do these compare to disorders identified at initial placement?

Placement Procedures Following Reevaluation

1. How many persons serve on reevaluation placement committees? How do the sizes of reevaluation placement committees compare to the sizes of initial placement committees?

2. What level of agreement occurs concerning reevaluation placements? How does the level of agreement compare at initial placement and at reevaluation for LEPs and non-LEPs?

Changes in Placement

1. What handicapping conditions are assigned to LEP and non-LEP students following reevaluation? How do these compare to those assigned at initial placement?

2. What handicapping conditions had been assigned to LEP and non-LEP students by the time data were collected in 1985? How do these handicaps compare to those assigned at reevaluation?

3. How much time in special education is recommended for LEP and non-LEP students following reevaluation? How does this compare to the amount of time which was recommended at initial placement?

Policy

1. What steps and personnel are involved in reevaluations and the three-year review?

2. Are any provisions for consideration of children's linguistic, cultural or other relevant background characteristics incorporated into district policies?

Definitions

Speech and Language Handicapped

The terms speech and/or language handicapped and communication disordered are used interchangeably in this report. The definition of speech handicapped provided by the Texas Education Code (Texas Education Agency, 1980) is:

> Speech handicapped students are students whose speech is so impaired that they cannot be adequately educated in regular classes of the public schools without the provision of special services. (p. 4)

A student eligible for services is "one who has been determined by a certified speech and hearing therapist to have a communication disorder, or a voice impairment" (p. 27). Communication disorders include impairments of articulation, language or rhythm.

Limited English Proficiency

The 1974 Amendments (P.L. 93-380) to the Elementary and Secondary Education Act (1965) define limited English proficient individuals or those with limited English speaking ability as those

> who (a) were not born in the United States or whose native language is other than English; and (b) . . . who come from environments where a language other than English is dominant . . . and, by reason thereof, have difficulty speaking, reading, writing and understanding instruction in the English language. (p. 10)

Native Language

When used with reference to a student of limited English proficiency, native language is defined as "the language normally used with such individuals, or, in the case of a child, the language normally used by the parents of the child" (P.L. 93-380, p. 566).

Reevaluation

Regulation 300.534 (20 U.S.C. 1412 (5) (c)) of the Education for All Handicapped Children Act (P.L. 94-142) provides for the periodic reevaluation of the status of students receiving special education services. The regulation states that

> each state and local education agency shall insure . . . that an evaluation of the child . . . is conducted every three years or more frequently if conditions warrant or if the child's parent or teacher requests an evaluation. (Texas Education Agency, 1985, p.93)

II

REVIEW OF RELATED RESEARCH

Many of the characteristics of children normally acquiring a second language are similar to behaviors considered symptomatic of speech and language disorders or of learning disabilities (Damico, Oller & Storey, 1983; Mattes & Omark, 1984; Ortiz & Maldonado-Colón, 1986). Behaviors such as poor comprehension, limited vocabulary, or grammatical and syntactical errors may signify communication disorders for some students but, for others, they reflect a lack of English proficiency. It is possible, then, that special education referrals may result from teachers' lack of understanding of how children acquire English as a second language. Teachers' perceptions that children are handicapped are confirmed when speech pathologists rely on assessment procedures which focus on students' mastery of the surface structures of language (e.g., tests of phonology, syntax, grammar, etc.), rather than on their ability to understand and communicate meaning (e.g. pragmatic criteria). High error rates on surface structures are inaccurately interpreted as indicative of a speech or language disorder. While one could argue that language minority students profit from the individualized instruction provided by specially trained teachers and therapists, the placement of normal, as opposed to handicapped, students in special education decreases the effectiveness of appraisal and instructional personnel available to serve the handicapped. Moreover, therapeutic interventions may interfere with a natural developmental process (Anderson, cited in Mattes & Omark, 1984).

The problem of separating speech and language errors associated with normal second language acquisition from those associated with communication disorders is present throughout students' enrollments in special education. As children progress in school, state and federal policy mandate the reevaluation of their special education placement and program. The purpose of this study was to examine procedures used for assessment and placement of speech/ language handicapped Hispanics during the triannual evaluation. Of particular interest was the examination of how procedures were adapted to accommodate students' language proficiency status. The second major goal of the study was to document changes in articulation and other language characteristics which occur between the initial and the 3-year reevaluation.

Prevalence and Definition

Communication disorders are speech and language behaviors, or lack of behaviors, which are different from those expected given a child's chronological age (Bloom & Lahey, 1978). Prevalence figures suggest that 3 [illegible] of the general population exhibits communication disorders (Kaskowitz, 1977), although some estimates are as high as 7 to 10% of the school-aged population (Ingram, 1976) Communication behaviors are considered disordered if they interfere with communication, call adverse attention to the speaker, or cause him/her to be self conscious or maladjusted (Silverman, 1984). According to the American Speech, Hearing and Language Association (cited in Silverman, 1984), the most common of communication disorders are impairments of speech, language, or voice, and

stuttering. These disorders may be developmental or acquired and may result in a primary handicapping condition or be secondary to other disorders.

In Texas, speech and/or language handicapped (SLH) is the second most frequent classification of exceptional Hispanics, exceeded only by the identification of these students as learning disabled (Ortiz, García, Wheeler, & Maldonado-Colón, 1986). In 1983-84, of the Hispanics in special education, 20% were served in programs for the SLH, while 58% were in LD placements. These trends in placement are consistent with national statistics (U.S. GAO, 1981) which indicate that the most common classifications for language minorities are learning disabilities (36%), communication disorders (30%), and mental retardation (19%).

Articulation Disorders

Articulation errors, which are errors in the pronounciation of phonemes of the target language in isolation, in words, or in sentences, are the most common of speech disorders (McLean, 1974). To identify articulation problems, speech therapists administer an articulation test or obtain samples of conversational speech to confirm whether the child can produce sound(s) correctly spontaneously, or when given auditory, visual or other cues. Errors are then classified as omissions (deletions of sounds), substitutions (alternate sounds replace the correct ones), additions (insertion of extra sounds), or distortions (faulty production or lack of clarity in production of sounds). According to Templin (1957), substitution errors occur most frequently (74%), followed by distortions (16%) and omissions (10%). The variables most indicative of defective articulation are the number of omission errors, the total number of single consonants misarticulated, and the consistency of misarticulations (Peterson & Marquardt, 1981).

Language Disorders

The term language disorder denotes a deviation in the usual rate and sequence with which receptive and expressive language skills emerge. Ganz (1982) identified four major types of language disorders: (a) morphologic, the inappropriate or inadequate use and combination of morphemes; (b) semantic, the lack of understanding and expression of concepts and types of specific relationships; (c) syntactic, the inappropriate use of rules to combine single words into sentences; and (d) pragmatic, the lack of knowledge of the rules of language use for different purposes. In a similar vein, Bloom and Lahey (1978) distinguished among disorders of content, form, and use. Form is the means for connecting sound with meaning and consists of an inventory of linguistic units (phonology and morphology) and the system of rules for their combination (syntax). Content refers to ideas about objects and events in the world that are coded by language. Use is the acquired knowledge of rules and the perception of the communication context as well as the integration of knowledge of such factors as the occasion, topic, environment, and addressee into the communication act. Normal language development is the successful interaction among form, content, and use, while disordered language development is characterized by disruption within a component or in their interaction.

Disorders of Fluency and Voice

Two other types of communication disorders are rhythm or fluency disorders and voice disorders. These are discussed only briefly in this report as they occurred infrequently among the subjects of this study.

Fluency disorders are characterized by an unusually high number of interruptions, hesitations, or prolongations in conversational speech (Ganz, 1982). Stuttering, a fluency disorder, affects approximately one percent of the school-aged population (England, 1970). Speech pathologists generally differentiate primary stuttering, the early, simple repetitions of sounds and syllables characteristic of young children, from secondary stuttering (Haring, 1974) which incorporates non-speech behaviors or mannerisms such as gasps, eye blinks, facial contortions, and general struggling for breath (McLean, 1974). The causes of stuttering are unknown although it is generally considered to be learned or acquired behavior resulting from attempts not to stutter (Haring, 1974).

Stuttering evaluations focus on describing the nature and severity of the problem as well as the conditions which increase or decrease stuttering behaviors. Observational data are gathered from situations such as conversations, question answering, reading, and monologues (Ganz, 1982). The number of syllables spoken per minute, the number of syllables in which some type of dysfluent behavior occurs, and the type of dysfluency involved are analyzed to determine the severity of the problem and the appropriate interventions.

While voice problems are not speech impairments, per se, they are classified as such because voicing is part of the speech transmission mode of language (Haring, 1974). Disorders of voice, or phonation, result from a disturbance in the functioning of the larynx, and particularly of the vocal folds (Silverman, 1984). The most common voice problems are harshness, breathiness, hoarseness, and nasality. These impairments may result from inappropriate intensity, pitch, and/or the quality of the vocal tone (McLean, 1974).

The identification of voice disorders involves a certain degree of subjectivity since the criteria for eligibility rest on judgments that the child's voice quality is "unusual". Generally, a voice is considered disordered when (a) a defective structure or organic disorder of the vocal organs produces patterns of speaking which are sufficiently atypical as to interfere with communication; (b) voice production results in organic disorders of the vocal organs; or (c) the habitual manner of voice production results in atypical patterns of pitch, loudness, or quality which are not appropriate to the sex or chronological age of the speaker (Berry & Eisenson, 1956).

Speech and Language Assessment Approaches

According to Damico (1985a), the tests most frequently used by speech and language pathologists to determine the presence or absence of a speech or language disorder are not sensitive to functional aspects of language because they overemphasize language structure (e.g., syntax or grammar) and fragment language into separate components or skills. This has resulted from the influence of structural linguistics and transformational grammar (Hubbell,

1981; Leonard, 1972; Muma, 1978). Tests, therefore, focus on directly observable, quantifiable elements of language. Damico (1985b) describes the major problems of discrete skill assessment instruments as follows.

Modularity

Traditional language assessment approaches are based on the notion that language is modular in nature; that is, that language is comprised of various components (phonology, morphology, syntax, grammar, and vocabulary) which can be separated, examined in isolation, or measured independently of other skills. A typical speech and language assessment battery might include, for example, the Goldman-Fristoe Test of Articulation (Goldman & Fristoe, 1969), a test of phonology, the Peabody Picture Vocabulary Test (Dunn, 1965), and the Test of Oral Language Development (Newcomer & Hammill, 1977), which has several subtests to measure areas such as oral vocabulary, word discrimination, grammatical closure, etc. The examiner synthesizes scores on these instruments to describe language abilities and to derive a language quotient.

Syntax

Traditional assessment procedures emphasize syntax skills probably because this component interacts with semantics and morphology to express meanings. It is believed that syntactical structures are the best indicators of children's increasing linguistic proficiency as demonstrated by use of more complex language forms (Dulay, Hernandez-Chavez, & Burt, 1978). However, this emphasis on syntax is misdirected because meanings cannot be circumscribed by a grammatical rule system that operates exclusively at the phrase or sentence level. Rather, language use is influenced by such variables as speaker, intent, physical setting, verbal and social context. This suggests that speech and language evaluations should focus on naturally-occurring communication, rather than on the accuracy of syntactical or grammatical structures.

Quantification

The popularity of discrete point tests may be their ability to attach scores to language performance. Quantification is particularly important to placement committees charged with determining whether children meet eligibility criteria for special education services. Comparing children's performance against cut-off scores for eligibility simplifies the decisioning process. Scores, however, provide little substance for educational planning.

Norm Referencing

A key characteristic of traditional language assessment instruments is that they are norm-referenced. An individual child's performance can be compared to that of a particular chronological age or peer group. However, the majority of surface structures included on tests are learned at an early age, usually by age 6 or 7. When older children are tested, norms are based more on acquired knowledge or academic abilities rather than on oral language skills. Consequently, students are more likely to be classified as learning disabled and interventions developed without recognition of more basic language needs.

Standardization

Norm-referenced tests are characterized by standardized testing procedures. This allows comparison of an individual's performance with peers over time, in various testing situations, and with different examiners. To increase replicability of results, test publishers generally provide detailed descriptions of the procedures and scripts for administering test items. The need for standardization reduces language to a somewhat artificial system. Consequently, there are discrepancies between skills measured by instruments and those observed in spontaneous conversation.

The most common criticism of language assessment instruments is that they do not accurately represent or describe language characteristic of spontaneous communication. According to Leonard, Prutting, Perozzi, and Berkley (cited in Damico, 1985b): ". . . discrete skills emphasis introduces some (perhaps unavoidable) artificiality. The many dimensions of language operate in a synergistic relationship; their combined effects on a child's linguistic system is greater than the sum of their effects taken independently" (p. 14). Because language consists of some aspect of content or meaning that is coded or represented by linguistic form for some purpose or use in a particular environment (Bloom & Lahey, 1978), the initial focus in language description should be on how these three components interact rather than on the components themselves. Focusing on this interaction results in linguistic description rather than on quantification of correct or incorrect structures or responses and is consequently more descriptive of a child's performance in natural communication.

Use of Pragmatic Criteria in Speech and Language Assessment

There has been a recent shift in the field of speech and language pathology to a greater emphasis on evaluation of pragmatic skills in the identification of communication disorders. Pragmatics is defined as "the rules governing the use of language in context" (Bates, 1976, p. 420). According to Prutting (1982):

> There are few features of language that are not affected by pragmatic factors. A universal feature of language is that it is context sensitive. While it is possible conceptually to separate pragmatics, semantics, syntax, and phonology from one another, and we often do, they are interrelated nevertheless and operate synergistically. Therefore, the addition of pragmatics to understanding language provides a more complete and accurate understanding of the entire communicative system. (p. 125)

Damico (1985a) recommends the use of procedures that allow analysis of language data holistically and which sample communication interaction rather than responses to artificial tasks related only minimally to social interaction (e.g., items on discrete point tests). He developed a procedure, clinical discourse analysis, which incorporates clinical observation and analysis of data obtained from language samples to identify behavior patterns that interfere with interactive dyads.

Damico and Oller (1980) found that pragmatic criteria were more effective in aiding teachers to accurately identify communication disordered children. Teachers using these criteria referred significantly more children for testing ($p < 0.03$) but the accuracy of their referrals was significantly greater. In a second study, Damico, Oller, & Storey (1983) used the same behaviors (pragmatic and discrete point) as predictors of language-based academic problems in Spanish-English bilingual children. The results again indicated that the pragmatic behaviors were more effective indices of language learning difficulties as measured by academic and social progress over an academic year.

While alternatives to traditional approaches focus on data obtained in naturalistic settings, the natural communication assessment approach can still contain artificial aspects. For example, interviews are quite distinct from natural conversation and can be contrived and unnatural. This is particularly true when the child is asked to tell stories about pictures, for example, or to respond to questions to a stimulus such as, "Tell me about _____ (e.g., what you did last night)." Another concern is that it is both difficult and time consuming to analyze spontaneous language samples because of the emphasis on description of skills as opposed to determining whether an answer is correct or incorrect. Bloom and Lahey (1978) suggest that the analyses should be criterion-referenced descriptions which focus on the skills that are important to a given task or real-life situation or communication-referenced criteria which describe general communicative behavior, rather than specific standards of performance. Criterion-referencing is also more useful in selecting instructional interventions.

Diagnosing Communication Disorders In Language Minority Students

A child has a speech and language problem only if his/her language behaviors are atypical of peers from the same cultural group who speak the same dialect and who have had similar opportunities to hear and use language (Mattes & Omark, 1984). This excludes the child whose speech/language (a) contains dialectal variations; (b) exhibits deviations that are normal for certain stages of development; (c) is representative of his/her speech community; (d) is progressing at a slow rate, yet is still within the boundaries of a normal range; and/or (e) appears to be disordered because s/he was assessed under poor testing conditions or by an evaluator who was not knowledgeable about his/her native language. Moreover, because speech and language disorders affect common language processes which underlie different surface structures of the languages spoken by a child (Cummins, 1982, 1984), it is not possible to have a language disorder in one language and not in the other (Juarez, 1983). This suggests that diagnostic criteria must include evidence that the disorder occurs in the native language, not only in English.

Determination of the presence or absence of a disorder requires that a child's language be compared with developmental norms or with production of peers from similar backgrounds and comparable linguistic experiences. There are data available to describe the acquisition of English among native speakers. Similar data for languages other than English and for individuals who acquire

English as a second language, however, are very sparse, making the diagnosis of speech and language disorders among language minorities difficult. For a review of studies related to acquisition of phonological and syntactical structures among bilingual students, the reader is directed to Ortiz, Garcia, Wheeler and Maldonado-Colón (1986).

An additional problem is that, traditionally, identification of speech and language disorders has been based on the examinee's ability to use certain surface forms of speech, often the morphological and syntactic elements such as plurals, irregular verbs, and possessives (Oller, 1983). While analysis of these elements is critical to the diagnostic process, emphasis on surface structures creates a dilemma when the child being tested is limited English proficient. It is difficult to determine whether, for example, the child distorts or omits certain features of English syntax because of an articulation disorder or whether the error is developmental in nature and indicates that the student is in the process of normal second language acquisition (Damico et al., 1983). This underscores again the need to compare skills across languages and to focus initially on communicative intent rather than on analysis of discrete skills.

Triannual Reevaluations

The Education for All Handicapped Children Act (P.L. 94-142) provides for the periodic reevaluation of students receiving special education services. Districts are required to provide new assessment data to be used in determining students' continued eligibility for special education and to gauge student progress as a result of specialized intervention. No studies were found in the literature specific to the reevaluation process as it is carried out for communication disordered students. The present study represents an initial effort to study this process.

Summary

Diagnosis of speech and language disorders among bilingual populations has been virtually ignored in the research literature until recently (Damico et al., 1983). Available data are based on studies in which subjects were selected on the basis of ethnicity, rather than on levels of language proficiency in the native language and in English. These studies shed little light on the interaction of language proficiency and handicapping conditions. Additionally, past research has stressed the use of surface structure criteria rather than pragmatic ones in diagnosing communication disorders. Assessment personnel must be cognizant that, because of differences in the amount of exposure and experience with the language, it is normal for LEP students to demonstrate a lower level of English language proficiency (i.e., greater error rate) than their monolingual English speaking peers, particularly on standardized tests of English language development. This low performance alone is not sufficient to conclude that the child is disordered or to justify placement in special education.

III

METHODS AND PROCEDURES

This was a descriptive, exploratory study of special education services provided to both limited English proficient and English proficient Hispanic students who were classified as communication disordered. The focus of the study was on students' first special education reevaluations and their subsequent educational placements. Students' eligibility folders were examined to determine when the first reevaluation occurred, how assessments were conducted and what educational placement resulted from the placement committees' deliberations of reevaluation data. Differences in reevaluation procedures and outcomes for LEP and non-LEP students were of particular interest.

Data were collected on two occasions; once in 1984 and once in 1985. The 1984 data focused on subjects' entry into special education. Eligibility folders were examined in an effort to determine why students had been referred initially, how they were assessed, and what initial placement decisions resulted. The 1984 sample, data collection and data analysis procedures have been described elsewhere (Ortiz, Garcia, Wheeler & Maldonado-Colon, 1986). Methods and procedures described here apply to the 1985 data collection in which reevaluation data were obtained.

Subjects

The sample for this study included 52 Hispanic students (34 males and 18 females) from three urban school districts in central Texas. This sample represented all subjects from the earlier data collection who had been in special education for at least three years as of 1984-85 and were therefore eligible for reevaluation. The majority of students had entered special education during the 1980-81 school year (see Table 1).

Students were enrolled in grades 2 through 5 and received special education services for speech and/or language handicaps during the 1982-83 school year. Twenty-four subjects (15 males and 9 females) had been classified as LEP by their school district during 1982-83, while the other 28 (19 males and 9 females) had not. District special education and bilingual education records were used to verify each student's handicapping condition and LEP status. The number of subjects from each district and their LEP status is shown in Table 2.

District Characteristics

To assure confidentiality, descriptive information about participating districts has been kept to a minimum. The three urban districts selected had a large Hispanic enrollment and long-established bilingual and special education programs. The existence of these programs was critical given the research focus on students who were both handicapped and limited English proficient. Table 3 shows the total 1982-83 enrollment, the total Hispanic

enrollment, and the number of children classified as speech and language handicapped for each district.

Data Collection Procedures

Data collection procedures involved three steps: (a) design of data collection forms, (b) training of data coders, and (c) the data collection activity itself.

Design of Data Collection Instruments

A data collection form was designed to capture reevaluation information from student records. Copies of the various special education forms used by the districts were obtained and information specific to the reassessment and subsequent educational placement of students was identified. Due to differences among forms used by the school districts, three separate instruments were used to expedite data collection. However, these forms collected similar information.

Training of Coders

Three persons participated in data collection, including two part-time research assistants hired specifically for this task and one Handicapped Minority Research Institute staff member. The coders received training which familiarized them with district special education forms and the data collection instrument. They were supervised by the HMRI staff member who examined the accuracy of a random set of data collection forms. Corrective feedback was provided as needed. In addition, coders checked each other's work as data collection forms were completed.

Data Collection

Reevaluation data were collected between February and July of 1985. Each district's special education or evaluation director was designated by the superintendent or an assistant superintendent to be an official liaison to the HMRI. The district liaison notified other district personnel, including central office and school-based staff responsible for maintenance of special education records, that approval had been granted to examine student folders.

Data Preparation and Analysis

Verified and corrected reevaluation data were arranged into three separate computer files, one for each district, as an initial step toward the preparation of a "master" data file containing initial and reevaluation data for all students from all districts. For each district file, a corresponding control card file was written using the Statistical Package for the Social Sciences (SPSS; Nie, Hull, Jenkins, Steinbrenner & Bent, 1975).

HMRI staff reviewed variable lists from each district and from the 1984 data collection (Ortiz et al., 1986) to identify information which had been entered into student records at both initial placement and reevaluation and which was available for at least two districts. Initial and reevaluation district files were combined to create a "master" SLH student data file which was used for data analyses.

Analyses included both descriptive information such as means, frequencies and crosstabulations and inferential statistics such as analysis of variance. Further details about individual data analyses are provided in the results chapter.

Methodology Limitations

Because of the need to locate students who were enrolled in special education programs in the same school district at two different times, separated by a three year interval, only a relatively small sample could be obtained for this study. Testing of some inferential hypotheses was therefore limited by sample size. Results based on this sample are probably not generalizable to students who change school districts between initial and triannual special education evaluations. Such changes may introduce disruptions or differences in the provision of special education services not encountered by students who remain in the same district. A change in districts may also result in a reassessment and a new individualized education plan (IEP).

The results of this study are also limited because the special education interventions which occurred between evaluations were not documented. Some reevaluation data were undoubtedly influenced by the quality of these interventions as well as by child characteristics. Records of the type and duration of interventions undertaken were not, however, a part of children's eligibility folders, other than as generally described in the student's IEP.

Additionally, the results reported in this document are based on an exploratory, field-oriented, and ex post facto research methodology. Therefore, the limitations of descriptive methodology are also limitations of this investigation. Kerlinger, and Mason and Bramble (cited in Garcia, 1984) describe these limitations:

1. The range and number of complex variables which are often studied in non-laboratory settings can result in substantial problems in the identification of cause-and-effect relationships among the variables.

2. Because appropriate sampling may be problematic, there are difficulties, hazards and limitations associated with the generalization of results. Moreover, in a study utilizing ex post facto methodology, the research subjects have already been assigned to the program being investigated.

3. Descriptive research also has the additional limitation that the reported findings may be biased in the collection and interpretation of the data. Because this type of research methodology relies on a type of open-ended

inquiry, there is sometimes a tendency to overlook evidence that could cause one to arrive at different interpretations or conclusions.

Finally, in research that deals with the collection of information from student folders, the results can be only as reliable and as valid as the information documented in school district records. As Kerlinger (cited in Garcia, 1984) warns:

> The records of many schools and school districts are not well kept. And in most cases, no thought has been given to the research use of records. Scores will be missing or inaccurately recorded . . . . Meanwhile, investigators must be constantly alert to possibilities of inaccuracies and the fact that school records are often not in adequate form for statistical treatment. (pp. 543-544)

Missing data may be regarded as indicating the absence of some pertinent special education action. However, drawing such a conclusion may be erroneous, as the action may have occurred but simply not have been recorded.

IV

RESULTS AND DISCUSSION

Examination of the reevaluations of LEP and non-LEP speech/language handicapped students focused on six major areas: (a) students' referral and initial placement characteristics, (b) the reevaluation assessment, (c) reevaluation results, (d) placement procedures following reevaluation, (e) changes in placement at reevaluation, and (f) district policies. Federal and state policies related to reevaluation were also examined.

Referral/Initial Placement Characteristics

The following research questions concerning initial placement characteristics were examined:

1. What are the reasons for referral of LEP and non-LEP SLH students?
2. Who is the primary referral agent?
3. What is the primary home language of both groups?
4. What are other initial placement characteristics of both groups?
   a. At what age are students referred?
   b. In what grade are students referred?
   c. What are students' retention histories?

Reasons for Referral

Reasons for referral to speech therapy were obtained from two sources. The first was the special education referral form completed by the classroom teacher. This form was usually a part of the child's special education eligibility folder. The second source was the speech referral form which was usually a part of the folder maintained by the speech therapist.

Teachers listed seven reasons for referring LEP students and 10 reasons for referring non-LEPs. The majority of students from both groups were referred because of specific speech difficulties rather than because of academic problems. The most common reason for referral of LEP students was poor language development or limited language (listed for 33.3% of LEPs); the most common reason for referral of non-LEPs was speech in general (listed for 23.8% of non-LEPs; see Table 4). Reasons for referral taken from speech folders suggest that the majority of students (both LEP and non-LEP) were referred due to articulation problems. Articulation was the major reason for speech referral for the total sample, for LEPs and non-LEPs in District 1 and for LEPs in District 2. The majority of non-LEPs from District 2 were referred for reasons classified as "other" in speech folders, and the majority of students from District 3 were

referred for language. However, speech referral data were available for only a small number of students from these two groups (see Table 5).

Referral Source

The source of the referral for speech therapy was obtained from speech therapists' assessment reports. The majority of both LEPs and non-LEPs were referred to speech therapy by their classroom teacher. Other sources of referral included the district speech screening and sources classified as "other" in speech folders (see Table 6).

Primary Home Language

When diagnosing speech or language problems of bilingual children, their home language is an important consideration. Juarez (1983) suggests that a speech problem must be diagnosed in an individual's first language, and cannot exist in the second language only. Information about the language of the home helps the therapist determine whether speech and language difficulties observed by childrens' teachers or discovered in the screening process are the result of a disability or, in terms of English language characteristics, simply reflect that the child is acquiring English as a second language.

Despite its importance, home language information was missing for about 20% of both LEPs and non-LEPs. The rate of missing data varied among districts. Home languages were recorded in special education folders for all children in District 1, while they were missing for the majority of non-LEPs in District 2. In District 3, home language information was absent for about 35% of Hispanic children (see Table 7).

When home language information was available, it appeared to be consistent with the LEP status of the child. The majority of LEPs came from homes in which Spanish was the primary language, while the largest number of non-LEPs came from homes in which the primary language was English.

Age at Referral

Age at referral was obtained by finding the difference between childrens' birth dates and dates of referral. The average age at referral for LEP students was 2410.5 days. This is approximately equal to 6 years, 7 months. The average age at referral for non-LEPs was 2292.6 days, or about 6 years, 3 months. The difference in age between the two groups is not statistically significant ($t = 0.58$ with 31 degrees of freedom, $p > .05$).

The range of ages at referral for both groups is shown in Figure 1. The figure shows that the majority of both LEPs and non-LEPs were referred to speech therapy when they were between 5 and 7 years old.

Grade at Referral

The grades in which both LEP and non-LEP students were enrolled at the time of referral are shown in Figure 2. The greatest number of children from each group were in kindergarten at the time of referral, followed by 1st grade.

These findings related to age and grade at referral suggest that speech therapists in these districts adhered to a philosophy of early intervention. However, as will be discussed later, caution must be exercised when identifying young LEP students as communication disordered. Because they are in the process of learning English, these students are likely to make frequent errors on English phonology, syntax, grammar, and vocabulary. Such errors, characteristic of the normal second language acquisition process, could inaccurately be diagnosed as speech and language disorders. Moreover, therapy can interfere with a natural developmental process (Anderson, cited in Mattes & Omark, 1984).

Retention History

Information concerning retention prior to referral was missing from special education folders for the majority of both LEPs and non-LEPs. The majority of students for whom information was available had not been retained (see Table 8).

The Reevaluation Assessment

The following questions were used as the bases for analyses of data concerning reevaluation assessments:

1. How much time elapses between the initial assessment and the first reevaluation of LEP and non-LEP students?

2. What are the characteristics of test batteries used in the reevaluation process?

   a. Which tests are included in initial and reevaluation assessments?

   b. How many and what types of tests are included in initial and reevaluation assessment batteries? Do the number and types of tests used differ for LEPs and non-LEPs?

3. What language proficiency testing is included in reevaluations? What other language information is collected?

4. In what language are tests administered at reevaluation? How does the language used compare to the language of administration for initial assessments?

Time Between Evaluations

Students' speech folders were examined to determine when the first testing which followed the initial evaluation occurred. In most cases, students were given at least one standardized test annually, although this testing was not considered to be a full reevaluation. Reevaluations were identified using ARD records and/or statements which established reevaluation as the purpose of testing.

Dates of initial and reevaluation testing were available for 20 LEPs and 23 non-LEPs. On the average, reevaluation occurred 36.0 months after initial testing for LEPs and 38.2 months after initial testing for non-LEPs. The difference between these two means is not significant ($t = -1.67$ with 27 degrees of freedom; $p > .05$). Both means are in accord with state and federal policies which mandate that reevaluation shall occur no later than three years after the anniversary date of special education placement.

While reevaluation can occur before three years have elapsed, this happened infrequently. Seven LEPs (35.0%) and 4 non-LEPs (17.4%) had time intervals between evaluations which were less than 36 months. This finding indicates that most students will spend at least three years in special education and underscores the importance of an accurate diagnosis at the time of the initial evaluation. Otherwise, it may be as long as three years before errors in placement are discovered.

Characteristics of Test Batteries

Tests administered. The names of standardized tests used by each district as a part of initial and reevaluation test batteries were obtained from assessment reports. Test data were available for both LEPs and non-LEPs from Districts 2 and 3; District 1 data were available for non-LEPs only. Tests included in both evaluations were divided into ten content areas using available information from test publishers or other sources regarding their purpose. These categories included articulation, fluency, language development, language dominance/proficiency, language sample, voice, other language (which included any language test that did not fit into the previously listed categories), achievement, aptitude/intelligence, and other tests. Tables 9, 10 and 11 show the categorization of all tests. The tests which were most commonly used varied across the three districts. Districts 1 and 2 administered both the Goldman-Fristoe Test of Articulation (GFTA) and the English version of the Peabody Picture Vocabulary Test (PPVT) to at least 50% of students at both initial placement and reevaluation; District 1 also used the Test of Oral Language Development (TOLD) at least 50% of the time at both testings. District 3, however, used a variety of tests so that the only instrument which was administered in 50% or more of both evaluations was a language sample.

Examination of the number and percentage of students who were tested in each of the 10 areas described above at both evaluations revealed that, across districts, the area most tested at both initial placement and reevaluation was language development. The majority of students in all districts received at least one test which fell into this category (see Table 12). District differences in the areas covered by a typical test battery (i.e., areas that were tested for 50% or more of the students in a district) were apparent (see Table 13). For example, Districts 1 and 2 tested articulation more frequently than did District 3, while District 3 used language samples more often than other districts.

Overall, examination of tests administered suggests that the testing procedures that are used to classify a child as speech/language handicapped vary among districts. It seems possible that the differences in areas tested might allow a child to receive services in one district but not in another. Additionally, results suggest that LEP status does not greatly influence test batteries. In general, the same areas were tested for both groups, especially at reevaluation.

Number of tests administered to each child. Information from assessment batteries was also used to calculate the average number of tests of each type and the total number of tests administered to LEPs and non-LEPs during initial and reevaluation assessments. Average numbers of tests administered were similar across districts (see Table 14). The only area for which more than one test per child was generally given was language development.

The mean number of tests administered within each content area and the total number of tests administered at both evaluations were compared using 2 X 2 repeated measures analyses of variance in which LEP status was treated as a between subjects factor and time of testing was treated as a within subjects factor (see Table 15). Means were combined for Districts 2 and 3 for these analyses due to small sample sizes within districts. District 1 was omitted because no LEP subjects were available. Based on the two districts' data, several significant ($p < .05$) results were obtained. Tests of fluency were administered significantly more often to non-LEPs than to LEPs, and were used significantly more often at reevaluation than at initial placement. Significantly fewer tests of language development and significantly more voice tests were given at reevaluation than at initial placement, and the total number of tests included in reevaluations was significantly smaller than the initial placement total. On the average, 4.8 tests were given at initial placement and 3.6 were given at reevaluation.

There are several possible explanations for these findings, all of which must be explored by further research.

1. More testing is necessary to diagnose disorders at the time of the initial evaluation. Because possible cause(s) are identified at this time and, perhaps more importantly, other causative factors are eliminated, initial testing serves to streamline future evaluations. Less testing may be done at reevaluation because teachers and therapists had already made informal decisions about a student's continued need for services based on classroom performance and progress in speech therapy. Selected formal evaluations are used to validate their conclusion rather than as a full diagnostic battery. Improved student performance is also a likely explanation for the use of fewer tests at reevaluation.

2. It is possible that speech therapists gave fewer language tests at reevaluation because subjects made fewer communication errors and therapists and teachers were thus less concerned about language development. Why the students might have made fewer errors is a more interesting question. One possibility is that therapists remediated students' disorders in the period between the initial and the triannual evaluations. Maturation may also have contributed to improved performance. A third possibility is that these Hispanic students had now had sufficient time to attain basic communication skills in English and that their increased knowledge of English resulted in fewer syntactical, grammatical, or semantic mistakes. In other words, for these students, initial problems may have resulted from a lack of English proficiency, not a handicapping condition. The problem, then, "remediated" itself.

3. That more fluency and voice assessments were conducted at reevaluation is more difficult to explain. In most instances, formal testing in

these areas was not conducted; rather, therapists informally concluded that fluency and voice were or were not within normal limits based on their interactions with the child during the testing process. Because most speech and language report forms included sections in which therapists were to rate areas such as voice, fluency, vision, hearing, etc., the form itself may make it appear as though there was a higher level of testing of voice and fluency. Problems in these areas may be considered more important for older subjects, explaining the higher level of analyses at reevaluation than at initial testing. It is also possible that the non-LEP subjects, while English proficient, were nonetheless Spanish dominant. Pressure placed on these students to continuously perform in their weaker language during the evaluation may create high levels of anxiety, the manifestations of which might be linguistic dysfluencies.

Language Information Obtained at Reevaluation

Before conducting the reevaluation assessment, it was necessary for speech therapists to determine the appropriate language to use for testing. Similarly, reevaluation placement committees were responsible for determining whether children's speech and language errors were the result of a true handicapping condition or of linguistic differences. Therefore, language-related information which was obtained as a part of the three-year reevalution was of particular interest.

Three sources of language data were considered: tests of language dominance and/or proficiency, children's primary home language as it was described in the reevaluation assessment, and children's dominant language in school at the time of reevaluation. All data were collected from reevaluation assessment reports or information sheets which appeared in students' eligibility folders.

Tests of language dominance and proficiency were included in reevaluations infrequently, and rates of testing varied somewhat by district. Twenty percent of LEPs in District 2 and 15% of LEPs in District 3 received a language dominance test as a part of reevaluation. No data were available for District 1. Rates of testing were lower for non-LEPs. Seven percent of non-LEPs from District 1, 20% of non-LEPs from District 2 and none of the non-LEPs from District 3 were given language dominance/proficiency measures.

Data concerning primary home language were available for Districts 1 and 3. Primary home language was not reported in reevaluation information for the majority of students. Across districts, data were missing for 93% of LEPs and 83% of non-LEPs (see Table 16).

Data concerning dominant language at school were also available for Districts 1 and 3. Data were missing for the majority of students (65% of both LEPs and non-LEPs). English was the most frequently reported dominant language at school for those students for whom data were available (see Table 17).

Overall, data suggest that very little language dominance or proficiency information is collected during reevaluations. Despite the need to separate language background from language handicap, new language dominance and

proficiency testing is rarely carried out, and information about home and school language use is not usually updated.

Accurate information describing language proficiency of LEP students is critical. Because these students know little or no English, the presence of a communication disorder must be documented in the native language. Language dominance and proficiency information is equally significant for non-LEP students. While some Hispanic students may have adequate English communication skills, Spanish may, nonetheless, be their stronger or dominant language. If this is the case, evidence of a handicapping condition, despite the student's classification as English proficient, must be documented in Spanish. Otherwise, speech language therapists are in danger of identifying false positives. That is, errors made by these students may be attributed to a speech or language disorder when, instead, they may indicate that the student is still in the process of acquiring English as a second language. Determination of the dominant language can only be established by examining patterns of performance in both languages.

Language of Test Administration at Reevaluation

Information concerning the language of test administration at reevaluation was collected from reevaluation assessment reports. Rates of reporting the language of administration differed by district. The language in which testing had been carried out was described for the majority of students in Districts 2 and 3, but was missing for nearly all students in District 1. The majority of students for whom the language of administration was described were tested in English (see Table 18).

Comparisons of language of administration across testings suggested that more testing was done in English at reevaluation than at initial placement. Two methods of comparison were used. First, the mean number of Spanish tests administered to LEPs and non-LEPs in Districts 2 and 3 at both evaluations was compared using a 2 X 2 repeated measures analysis of variance like those previously described. Significant main effects and a significant interaction were found. Overall, LEPs were more frequently tested in Spanish than non-LEPs, more Spanish testing occurred at initial placement than at reevaluation, and the amount of Spanish testing dropped more sharply between evaluations for LEPs than for non-LEPs (see Figure 3). This supports the hypothesis that therapists may assume that once a child becomes proficient in English, testing in the native language is a moot issue. However, as indicated previously, for students from dual language backgrounds, identification of speech and language disorders requires a comparison of skills in both languages.

A crosstabulation of language of administration from each testing was also obtained. Complete data were available for only 9 subjects (5 LEPs and 4 non-LEPs). Results of the crosstabulation were consistent with analysis of variance results, and suggested a greater use of English in reevaluation testing. Three LEPs and 3 non-LEPs had been administered at least some of their initial assessment in Spanish, while no child in this group of 9 was tested in Spanish or bilingually at reevaluation.

Reevaluation Results

Data gathered during reevaluation assessments were used to answer the following research questions:

1. How do students perform on the Goldman-Fristoe Test of Articulation at reevaluation? How does this compare to their performance at initial assessment?

2. What types of speech disorders are identified at reevaluation? How do these compare to disorders identified at initial placement?

Articulation Performance

Articulation performance at reevaluation was examined through an analysis of students' errors on the Goldman-Fristoe Test of Articulation (GFTA). The Goldman-Fristoe was selected for analysis because it was the test of articulation which was most frequently administered at the time of reevaluation. The GFTA had been administered to 11 LEPs and 12 non-LEPs across the three districts, while the next most frequently used test, the Arizona Articulation Proficiency Scale (Fudala, 1970), had been administered to 1 LEP and 2 non-LEPs.

The GFTA tests children's production of 23 phonemes in initial, medial and final positions within words and productions of 12 blends in the initial position. The test contains three subtests: sounds in words, sounds in sentences and stimulability and can be used with children 2 years of age and older. The number of errors made by the examinee are compared to the expected number of errors made by normal children, by age.

Preliminary analyses of data revealed that non-LEP children for whom GFTA data were available were older than LEP children. On the average, non-LEPs were 9.9 years old when tested with the GFTA; LEPs were 8.4 years old. This difference in age is statistically significant ($t = -3.53$ with 19 degrees of freedom; $p = .002$. The t test was calculated using age in days at time of testing). Since the full sample of LEPs and non-LEPs had not differed in age at initial placement and had been reevaluated after approximately the same amount of time, this significant difference suggests that the students who were given the GFTA at reevaluation may have had some characteristics which differed from Hispanic SLH students in general. Exactly why speech therapists chose to test LEPs who were younger than non-LEPs cannot be determined from the data. Assuming that testing was undertaken when therapists perceived children to be making more articulation errors than would be expected for their age, LEPs may have been tested because of their dialectal errors. These dialectal errors, in addition to pronunciation errors normally made by children under the age of 8 and along with other articulation errors, may have caused therapists to decide that further diagnostic testing was needed. On the other hand, non-LEPs, could be expected to make fewer dialectal errors because of their greater English proficiency and fewer errors, in general, because they were older.

Initial data analysis plans called for direct comparison of errors made by LEP and non-LEP children. However, since differences in errors and error rates

between the two groups could reflect either their difference in age or their difference in English proficiency, direct comparisons were not carried out. Rather, analyses of articulation data focused on (a) descriptions of errors made by both groups, (b) development and dialect as potential sources of error, and (c) comparison of initial and reevaluation articulation performance within groups.

Articulation errors were tabulated for each consonant sound tested by type of error (substitution, omission or distortion) and by position (initial, medial or final). Blend errors were coded as present or absent (see Tables 19 and 20). Overall, the greatest number of errors occurred for the voiceless /th/ and /sh/ consonant sounds, while blend errors occurred relatively infrequently. Substitution errors were more frequently made by both LEP and non-LEP children than were distortions (see Table 21).

Not all consonant sounds are mastered until the age of 8 years. Since some LEP children (n = 3) fell below this age, their errors were analyzed to determine how many of them might have been developmental rather than indicative of a speech/language handicap. The 27 total errors made by these three children included 15 substitutions, 10 distortions, and 2 omissions. Of these, 10 errors (37.0%) might have been developmental in nature.

Referral characteristics of the sample indicated that the majority of students came from homes in which at least some Spanish was spoken. Seventy-nine percent of LEPs and 50% of non-LEPs for whom home language data from the time of referral were available came from homes in which either Spanish or both Spanish and English were identified as the primary language(s). Results of articulation testing were therefore compared with phonological characteristics of Spanish speakers who acquire English as a second language. Saville and Troike (1975) predicted that the following English sounds would be the most difficult to discriminate and produce: /ch/-/sh/; /s/-/z/; /n/-/ng/; /b/-/v/; /t/-/soft th/-/s/; /d/-/hard th/; and /y/-/j/. Table 22 details substitution errors made by LEP and non-LEP students. All substitution patterns identified by Saville and Troike except /n/-/ng/ appear in the table, and the sounds for which the greatest number of substitutions were made, especially by LEPs, are all sounds which are identified as problematic. Of the 60 substitution errors made by LEPs, 32 (or 53.3%) are among those predicted by Saville and Troike. Seventeen of the 24 substitution errors made by non-LEPs (70.8%) are also errors which phonemic comparison of Spanish and English would predict.

Comparison of errors across testings were made using t tests for each type of error (see Table 23). Despite small sample sizes, the number of substitution and omission errors made by LEPs decreased significantly between testings. Large decreases in the number of substitution, omission and blend errors were also observed for non-LEPs.

Overall, these articulation data suggest that errors made by Hispanic students at reevaluation may have been dialectal, and to a lesser degree, developmental. They also suggest that children's articulation improved during the three years in which they received speech therapy. However, it is possible that students' improved articulation between testings was the result of a natural second language acquisition process, not the result of intervention.

Types of Speech Disorders Identified

Diagnoses of speech disorders identified at reevaluation were available for Districts 2 and 3. Three types of disorders were found for LEP subjects; five types were found for non-LEPs. The majority of LEPs in the full sample and in both districts were diagnosed as having language disorders at the time of reevaluation. Disorders identified for non-LEPs differed slightly between districts. Half of the non-LEPs in District 2 showed articulation disorders; the other half showed both articulation and language disorders. In District 3, the largest percentage of non-LEPs (37.5%) showed language disorders (see Table 24). Overall, a more varied set of disorders appeared to be identified for non-LEPs than for LEPs.

Eighteen student assessment reports, of a possible 36 (50%), recorded the type of speech disorder identified at both initial placement and at reevaluation. Twelve of these were assessment reports for LEP students; 6 were for non-LEPs. The same type of disorder was identified at initial placement and at reevaluation for 58% of LEPs (n = 7) and 33% of non-LEPs (n = 2). The majority of LEPs (n = 5) were diagnosed as language disordered at both evaluations; non-LEPs were found to have either articulation or articulation and language disorders. The small number of subjects for whom data from both evaluations were available make conclusions difficult to draw. The large amount of missing data encountered suggests a need to more systematically record the specific nature of the disorder in eligibility folders.

Placement Procedures Following Reevaluation

The following research questions guided analysis of data concerning placement procedures following reevaluation:

1. How many persons serve on reevaluation placement committees? How do the sizes of the reevaluation placement committees compare to the sizes of initial placement committees?

2. What level of agreement occurs concerning reevaluation placements? How does the level of agreement compare at initial placement and at reevaluation for LEPs and non-LEPs?

Size of Placement Committees

The size of placement committees was determined by counting the number of signatures which appeared on the placement committee report form. On the average, review committees for LEPs included 3.6 persons; committees for non-LEPs included 4.3 persons. Committee sizes did not vary widely across districts (see Table 25).

A 2 x 2 repeated measures analysis of variance in which LEP status was treated as a between subjects factor and time of committee meeting was treated as a within subjects factor was used to compare committee sizes at initial placement and reevaluation. Results showed no significant main effects. However, a significant ($p < .05$) interaction between factors was found.

Committees for LEPs were smaller at reevaluation than at initial placement, while committees for non-LEPs were approximately the same size at both times. (see Figure 4). It was not possible to determine which positions (if any) were not represented at reevaluation.

Level of Agreement

The number of placement committee members who agreed with the decision of the full committee at either initial placement or reevaluation was available for subjects from Districts 2 and 3 (n = 26; 15 LEP and 11 non-LEP). Agreement was indicated by signatures on the committee's report form, which included signature blocks for both agreement and dissent. Agreement among ARD committee members was unanimous (100%) for both LEPs and non-LEPs at both times in both districts. Levels of agreement are therefore equal for initial and reevaluation placements and for LEPs and non-LEPs. Signatures seem to indicate agreement with the concensus opinion, not individual opinions about the cases.

Changes in Placement

The following research questions concerning changes in placement were explored:

1. What handicaps are assigned to LEP and non-LEP students following reevaluation? How do these handicaps compare to those assigned at initial placement?

2. What handicaps had been assigned to LEP and non-LEP students by the time data were collected in 1985? How do these handicaps compare to those assigned at reevaluation?

3. How much time in special education is recommended for LEP and non-LEP students following reevaluation? How does this compare to the amount of time which was recommended at initial placement?

Handicaps Assigned at Reevaluation

Handicapping conditions assigned at reevaluation were obtained from placement committee meeting records. Data were available for 80.8% of the full sample (n = 42) including 70.8% of LEPs (n = 17) and 89.3% of non-LEPs (n = 25). Missing data were not distributed evenly across districts. Handicaps were available for all students from District 1, for 77.0% of students from District 2, and 76.2% of students from District 3 (see Table 26).

The majority of students (both LEP and non-LEP) were again assigned a primary handicapping condition of speech/language handicapped with no secondary handicap following reevaluation; i.e., the same handicapping condition which had been found at initial placement was found upon reevaluation. Across districts, rates of dismissal from special education were approximately equal for

LEPs and non-LEPs. Twelve percent of LEPs and 17% of non-LEPs were dismissed (see Table 26). However, rates of dismissal were not equal across districts. District 1 dismissed 31% of its students, while District 2 dismissed no students and District 3 dismissed 6 percent.

Handicaps at Data Collection

During data collection, it was noted that at least one school year had elapsed since a number of reevaluations had been conducted. Therefore, a decision was made to collect information about children's special education status during the 1984-85 school year (the year in which data collection took place) in addition to reevaluation information. These 1984-85 data will be referred to as updated status information. Data concerning updated status were collected in Districts 2 and 3 and were available for 29 subjects (19 LEP and 10 non-LEP).

Dates of the reevaluation placement meeting and the placement meeting from which the updated status information was obtained were compared. On the average, the updated status handicap followed reevaluation by 15.5 months for LEPs and 22.8 months for non-LEPs. The difference between these time intervals is not significant ($t = -1.67$ with 27 degress of freedom; $p > .05$). In general, updated information reflected students' special education status about 4 years after their initial placement and about 18 months after their first reevaluation.

Updated status data for LEPs and non-LEPs are shown in Table 27. Rates of dismissal are similar for the two groups. However, LEPs appear to be more likely than non-LEPs to have changed handicapping conditions within special education. Twenty-one percent of LEPs have a primary handicap other than speech/language handicapped, while no non-LEP does. In all cases, changes for LEPs are to handicapping conditions which suggest greater special education involvement. LEP subjects changed from their initial primary handicap of speech/language handicapped to a primary handicap of either learning disability (LD) or mental retardation (MR).

Time in Special Education

The amount of time students spent in special education, i.e. speech and language therapy, was obtained from initial and reevaluation placement committee records. Data concerning time in special education were available for non-LEPs in District 1 and subjects from District 3 only.

On the average, non-LEP students spent about one hour per week in speech therapy both before and after reevaluation. LEP students spent about one hour per week in therapy at initial placement and about one and one-half hours in therapy following reevaluation (see Table 28). T-tests were used to compare differences in the amount of time in therapy before and after reevaluation. Differences were not statistically significant for either group.

Due to the number of students for whom data were available and their distribution across districts, differences in time in special education for LEPs and non-LEPs could not be fully explored. However, in the one district where data were available for both groups, LEPs spent more time in speech therapy

following reevaluation than did non-LEPs. One possible explanation for this is that as language minority students acquire more English, errors are more noticeable because they produce more language which can be evaluated. Because these subjects are older than at the initial evaluation, therapists may become concerned about their lack of mastery and increase the amount of therapy thinking this may facilitate, or hasten, language development. However, second language acquisition literature suggests that acquisition (versus learning) cannot be hastened and that increased exposure to English does not necessarily help students acquire better English (Krashen, 1982). Moreover, LEP students with speech handicaps will not profit from increased time in special education where instruction is provided in English because it is unlikely that LEPs can improve their English performace without first receiving therapy aimed at remediating native language deficiencies. In other words, it is not possible to build good English skills on a faulty or deficient native language foundation. Likewise, if students have been inappropriately classified as handicapped because of their limited English proficiency, it is unlikely that they will profit from instruction aimed at remediating language deficiencies. These students could be better served by bilingual education programs which include an English as a second language component.

District Policy Analyses

Policies concerning reevaluation were analyzed to aid in the interpretation of findings. Federal and state policies and guidelines for special education were obtained from the Education for All Handicapped Children Act of 1975 (P.L. 94-142) and from the State Department's Policies and Administrative Procedures for the Education of Handicapped Students (Texas Education Agency, 1980); district procedures manuals were used to obtain local policies.

The following questions guided the analysis of policies concerning reevaluation:

1. What steps and personnel are involved in reevaluations and the three-year review?

2. Are any provisions for consideration of children's linguistic and cultural backgrounds incorporated into district policies?

Steps and Personnel Involved in Reevaluation

A reevaluation and three-year review is a part of a series of regularly scheduled reviews of the educational plan of any handicapped student. All three districts' procedures manuals include guidelines for annual reviews by the placement committee in which the appropriateness of: (a) the student's individualized education plan (IEP) goals and objectives, (b) the student's educational placement, and (c) any related services which the student received are considered. Annual reviews also examine the need for additional assessment and for any change in placement, including dismissal from special education. The annual review results in an updated IEP, and may result in a change in placement if it is determined that the student (a) needs a different placement,

(b) no longer needs special education services, or (c) no longer qualifies for services. No more specific criteria for placement change or dismissal are provided.

State policy mandates that:

1. A review in which the placement committee bases its decisions on new individual assessment information must occur at least once every three years;

2. The three year interval shall be based on the anniversary date of the student's initial placement in special education;

3. The professionals responsible for assessing each area of functioning and determining the handicapping condition shall determine and document the degree to which new assessment is necessary; and

4. The placement committee may request additional information for any area.

The three districts' policy manuals reflected state policy concerning reevaluation. Districts 1 and 3 quoted state policy directly; District 2 presented guidelines which incorporated all state directives. District 2 specifically stated that the reevaluation assessment must include all of the information required for the initial placement.

No district directly named the personnel to be involved in the reevaluation and review process, although District 2 stated that all procedures for a placement committee meeting must be followed. Policy concerning the membership of placement committees suggests that at a minimum, the three-year review must include representatives of administration, instruction, and assessment, an educational liaison, the student's parent or guardian or his/her representative, and the student if appropriate.

Provisions for LEP Students

No specific reference to how the review process should be carried out for children who are not native speakers of English was made in any district's policy manual. Federal policy regarding the reevaluation does state that testing must be carried out in the primary language, by trained personnel using tests which are valid for the purpose for which they are used. However, no guidelines as to how these tests shall be selected or how the assessment procedure shall be implemented are presented in policy at any level.

Summary

The data presented in this section suggest that speech and language pathologists do not adequately consider students' language proficiency at initial or triannual evaluations. In general, emphasis is given to assessment of students' English language proficiency, although successfully distinguishing linguistic differences from speech or language disorders requires comparison of students' dual language skills. Language proficiency is usually defined in terms

of mastery of discrete language skills such as syntax and vocabulary, while pragmatic skills are rarely considered. If they are, results of analysis of these skills are not adequately reported in evaluation reports.

Federal, state and local policy or administrative guidelines fail to address specific procedures for safeguarding language minority students in the identification, assessment and placement process. It is also likely that preservice and inservice training programs have failed to prepare speech and language pathologists to serve linguistically different students. In light of this, it is unrealistic to expect district personnel to effectively serve the dramatically increasing number of language minority students in public schools. Given this changing demography, issues affecting service delivery must be immediately addressed. The next section presents recommendations for improving practice.

V

RECOMMENDATIONS FOR POLICY, PRACTICE AND RESEARCH

Recommendations for improving services provided limited English proficient students in speech therapy programs have been discussed in a previous HMRI report (Ortiz, Garcia, Wheeler, & Maldonado-Colón, 1986). Many of the recommendations given for the initial eligibility process are also applicable to the reevaluation process. These recommendations are summarized in the sections which follow. Recommendations specific to the reevaluation process are also discussed.

Native Language Assessment

It appears that the lack of specific policy regarding the implementation of the mandate to test children in their dominant language results in large numbers of LEP students being tested in English, particularly at the time of 3-year evaluations. The net result of this practice is that limited English proficient students are served in speech and language therapy even though the presence of a handicapping condition cannot be confirmed because the data necessary to compare native language and English language competence are missing. It is possible, then, that precious resources are being diverted from handicapped students to help normal students acquire English as a second language.

Language Dominance and Proficiency

Every language minority child referred to special education should receive a language dominance and proficiency assessment before other tests are administered. These data are critical to all other steps in the special education process in that they help determine the language(s) of testing, the instruments and procedures to be used, and guide selection of appropriate interventions and recommendations about the language(s) of therapy for eligible students. Policy should require that all language minority students from dual language backgrounds, including those considered to be English proficient, be given a comprehensive language assessment before any other special education assessments are conducted. Only in this way can the right of children to be tested in their dominant language be safeguarded. Moreover, it is only through comparison of dual language skills that assessment personnel can discriminate those students who are handicapped from those who are in the process of acquiring English as a second language. If already available test results are used, these should be less than six months old so that they reflect the student's current level of functioning. Results of language dominance and proficiency assessments help assure that students are tested in their stronger language if a comprehensive speech and language assessment is recommended.

Analysis of Pragmatic Skills

Assessment results included in this report indicate an emphasis on measuring discrete language skills (e.g., articulation, vocabulary, phonology,

syntax, etc). However, limited English proficient students, precisely because they are in the process of acquiring English, are likely to perform poorly on these tests and to be judged eligible for speech/language services on the basis of developmental errors characteristic of linguistic differences, not handicapping conditions. The first priority for the speech/language evaluation should be to assess children's pragmatic skills; that is, how effectively children participate in communication interaction. Discrete point tests can then be used to pinpoint specific deficits if the pragmatic measures indicate disordered communication processes. Many speech pathologists already obtain language samples as part of the assessment battery. A shift away from analyzing these samples from the perspective of structural correctness to analysis of communication interactions, as recommended by Damico (1985a & 1985b), would provide data appropriate for assessing pragmatic skills.

Test Adaptations

Because of the limited availability of appropriate assessment instruments, speech pathologists frequently resort to adapting available instruments and procedures (Ortiz et al., 1986). If the procedures under which the test was administered or scored violate the original standardization, scores should not be reported as valid indicators of a child's functioning. All reports of speech and language assessments should describe adaptations of accepted procedures and state that caution must be exercised in the interpretation of test data, as these data may not accurately reflect students' language competence. Otherwise, school personnel and parents may grossly misinterpret scores because they are not properly explained by the examiner.

Triannual Assessments

Guidelines to govern triannual reevaluation procedures should be developed. Specific reevaluation questions should be developed to guide selection of the testing battery and to discourage the use of a standard battery which does not adequately take into consideration the range of type and severity of students' problems or the progress resulting from therapy provided in the interim. This may have the effect of reducing unnecessary testing (e.g., the use of an articulation test for students who are not receiving articulation therapy).

The requirement for a 3-year reevaluation may be inappropriate for speech and language disorders. Given the frequent change in students' skill levels, annual evaluations (as distinct from reviews) may be more appropriate. Data suggests that it is already common practice for therapists to test students annually, so this would not be a difficult policy to implement. The annual assessment requirement should allow for on-going assessments using both formal and informal procedures.

Speech therapists should collect longitudinal descriptions of students' language skills so they can monitor gains in native and second language competence and to be able to judge whether phenomena such as language loss are influencing student performance. The latter is a critical factor in that, as students become older, it becomes increasingly difficult to determine whether

presenting behaviors can be attributed to a disorder or to the system's failure to provide appropriate intervention. For example, LEP and non-LEP students may shift from being Spanish dominant to being English dominant if English is the primary language of instruction. That they are receiving instruction in their weaker language may interfere with both English language development and academic achievement. The lack of adequate opportunities to develop their native language skills may result in a loss of proficiency in that language. These students, when tested, will appear to perform poorly in both languages. Without longitudinal data, it is difficult to sort out the causes of the difficulty. However, poor Spanish performance may reflect language attrition resulting from lack of instruction rather than from a handicapping condition. Without longitudinal data, language attrition cannot be verified.

Appraisal Personnel

Evaluations for the purpose of determining special education eligibility should, except in the most unusual of circumstances, be conducted by someone who is fluent in the student's language and trained in assessment of linguistically and culturally different students. Local education agency personnel must, at a minimum, be required to document good faith efforts to secure the services of bilingual speech pathologists who are trained to evaluate LEP students. Such documentation could include, for example, description of efforts to locate and contract services of bilingual assessors or a written affirmative action plan to hire bilingual speech pathologists as vacancies occur. If bilingual therapists are not available, monolingual therapists must be provided formal training specific to evaluation of language minorities before they are given approval to assess these students. State departments of education should develop minimum requirements for such training.

The fact that so few qualified bilingual speech pathologists are available underscores the need to train such personnel. This is a manpower need which must be addressed by institutions of higher education as well as by local education agencies. Training to meet this need will require two foci: (a) development of training programs in bilingual speech pathology, and (b) development of training sequences for monolingual speech pathologists, as they comprise the majority of currently employed therapists as well as the majority of students in university speech pathology preparation programs.

Placement Committees

A bilingual individual with expertise in the education of language minority students should participate on initial and review committees, including committees which deliberate new assessment data generated through the triannual evaluation. Since federal and state regulations require participation of an appraisal representative on these committees, the bilingual speech pathologist would be an appropriate representative as s/he would have the requisite knowledge to interpret assessment data for other committee members. If the district does not have bilingual assessment personnel, a bilingual special educator, a

bilingual educator, or another bilingual professional should serve on the placement committee. However, being bilingual or a member of an ethnic or language minority group does not, in and of itself, qualify an individual as an appropriate committee member. Rather, representatives must have training and experience specific to the interaction of handicapping conditions and language proficiency.

Special education committees should also include representatives from all programs in which the child is being served (e.g., bilingual education or ESL programs). Representation of such personnel would help assure that services are coordinated and that goals and objectives addressed by respective programs are consistent with both the student's handicapping condition and his/her other unique needs. The position or role of all participants should be clearly specified on required reporting forms.

Recommendations for Research

The research base related to speech and language handicapped students who are also limited English proficient is so sparse that almost any question posed about identification, assessment, or instruction is worthy of investigation. Of utmost importance, however, is research which focuses on helping educators understand the process of normal language acquisition, in the native and in English as a second language, and how this process can be disrupted by speech and/or language disorders. The following are recommended lines of inquiry:

1. There continues to be a need for longitudinal studies of Spanish language acquisition among native-born Hispanic students to document developmental milestones in phonology, morphology, syntax, grammar, vocabulary and language use. It is these developmental norms against which children's language skills are compared in determining the presence or absence of handicapping conditions.

2. There is also a need to investigate how exposure to a second language influences native skill development and vice versa. The complexity of studying dual language acquisition is somewhat staggering, given the magnitude of variables which influence this process including those such as age of acquisition, motivation, relative language proficiency in the first and the second language, etc. Nonetheless, such studies are critical to understanding the interaction effects of language proficiency and exceptionalities.

3. Studies describing speech and language characteristics of students identified as speech and/or language disordered are also required. These studies would be helpful, for example, in distinguishing normal from abnormal language acquisition and for distinguishing language disorders from learning disabilities. The latter distinction is important to developing effective interventions.

4. Investigations of language attrition and language loss are important to the diagnostic process. LEP students who experience language loss demonstrate test performance similar to those of children with language disorders (Mattes & Omark, 1984). Procedures for assessing levels of attrition or loss must be developed to distinguish language loss from language disorders.

5. There has been a shift of emphasis from sole reliance on discrete skills assessments to incorporating pragmatic criteria in speech/language evaluations. Procedures which focus on pragmatic skills, such as those recommended by Damico (1985a), must be further validated. While Damico's criteria have been shown to be effective in the screening process, how these or similar procedures can be used and interpreted in the diagnosis of speech and language disorders must be investigated further.

6. The most frequent criticism of procedures used to assess language use or function is that it is difficult to train individuals in the use of these procedures and that they are very time consuming. Studies to determine the most effective procedures in terms of accuracy of diagnostic processes, time, and feasibility of training would be a helpful contribution to the speech pathology field.

7. A related line of inquiry involves the investigation of the most efficacious ways of obtaining language samples (e.g., observation of spontaneous conversations, structured interviews, storytelling or retelling, etc.).

8. While the literature suggests that using spontaneous language samples is the most effective means for assessing communicative competence, tests of discrete skills are also important to the diagnostic process. These tests allow one to describe the processes affected and to prescribe interventions in identified areas of need. Currently, there are ample numbers of tests of English language skills but these tests frequently do not include norms appropriate to Hispanic students. These tests should be standardized for these populations and particularly for native-born students from lower socioeconomic status environments who comprise the majority of limited English proficient and bilingual students. Only a limited number of Spanish language instruments are available. The development of such instruments should be a priority for the field. One aspect of this development effort should be to improve existing language dominance and proficiency tests.

9. Studies of assessment outcomes are also warranted. Comparison of students' eligibility when they are tested in the native language versus when they are tested in English should be made. Studies of differences in assessment outcomes when testing is conducted by monolingual therapists versus monolingual therapists who have received training in second language acquisition and in interpreting assessment results for LEP students should also be conducted. Similar studies of outcomes with trained versus untrained bilingual speech pathologists should be incorporated into this line of inquiry so that educators do not make the mistake of assuming that bilingualism, in and of itself, will result in a fair assessment process.

10. Data about speech/language therapy programs and their effectiveness for second language learners are virtually non-existent. A study of LEP learning disabled Hispanics at the point of their 3-year reevaluation (Wilkinson & Ortiz, 1986) indicated that the verbal and full scale IQs of these students declined and that, while their achievement improved, the discrepancy between their performance level and that of their peers was not reduced. The authors concluded that special education services, without accommodation of students' LEP status, will be fruitless. The outcomes of speech/language therapy provided in the

native language, bilingually, using English as a second language strategies, or delivered solely in English must be documented.

11. Decisioning models must be developed which provide a framework for interpreting the complex interactions of student characteristics (e.g., language, culture, socioeconomic status) and indicators of possible handicapping conditions in order to determine special education eligibility.

Summary

Data captured from eligibility folders revealed that procedures used by districts when LEP students were considered for continued special education placement were essentially the same as those used for English-speaking students. Language status was given little attention by assessment personnel or by placement committees. It was not possible to determine whether the subjects were speech or language disordered or whether difficulties were the result of their lack of English proficiency because limited testing in Spanish was conducted. These findings are a reflection of the state of practice in the emerging field of bilingual special education.

The literature suggests that it is not possible for a child to have a language disorder in English if the disorder is not manifested in the native language (Juarez, 1983). While there is a lack of trained bilingual speech pathologists, there are available trained bilingual educators and second language specialists whose professional judgments should be incorporated into the special education decisioning process. The costs of incorporating the judgments of bilingual professionals, or of contracting the services of a bilingual examiner, are justifiable given the exorbitant costs of providing special education services for normal students and the negative consequences of diminished services for the truly handicapped.

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Table 1

School Year of Initial Special Education Placement for Speech/Language Handicapped Students

	English proficiency status			
	LEP (n = 24)		Non-LEP (n = 28)	
Year of placement[a]	#	(%)	#	(%)
1976-77	0	(0.0)	1	(3.6)
1977-78	1	(4.2)	1	(3.6)
1978-79	2	(8.3)	3	(10.7)
1979-80	3	(12.5)	6	(21.4)
1980-81	16	(66.7)	16	(57.1)
1981-82	2	(8.3)	1	(3.6)
TOTAL	24	(100.0)	28	(100.0)

[a] Year of placement is based on the date of the initial Admission, Review and Dismissal Committee meeting.

Table 2

English Proficiency Status of Speech/Language Handicapped Students by School District

	English proficiency status					
	LEP		Non-LEP		Total	
District	#	(%)[a]	#	(%)	#	(%)
1	1	(1.9)	15	(28.8)	16	(30.8)
2	10	(19.2)	5	(9.6)	15	(28.8)
3	13	(25.0)	8	(15.4)	21	(30.4)
TOTAL	24	(46.2)	28	(53.8)	52	(100.0)

[a] Percentages are based on the full sample (n = 52).

Table 3

Enrollment Characteristics of Participating Districts

1982-83 enrollment	District 1	District 2	District 3
Regular education			
Total	17,827	65,770	60,268
Hispanic	15,433	45,384	15,471
Special education			
Total	2,418	7,425	7,329
Hispanic	2,272	5,467	2,238
Speech/language handicap			
Total	457	1,418	870
Hispanic	432	1,148	307

Note. The above information was obtained from the Texas Education Agency (a) 1982-1983 Superintendents Annual Report, Part I; (b) the Annual Special Education Statistical Report, 1982-83; and (c) the 1982-83 Pupils and Membership Report, Fall Survey.

Table 4

Reasons Given by Classroom Teachers for Referral of Limited English Proficient and English Proficient Speech/Language Handicapped Students

Reason for referral	English proficiency status: LEP (n = 15) #	(%)	Non-LEP (n = 21) #	(%)
Poor language development or limited language	5	(33.3)	3	(14.3)
Articulation problems	4	(26.7)	0	(0.0)
Speech	4	(26.7)	5	(23.8)
Unintelligible or difficult speech	3	(20.0)	2	(9.5)
Voice	1	(6.7)	0	(0.0)
Problems in both languages or in Spanish	1	(6.7)	0	(0.0)
Poor progress in reading	1	(6.7)	0	(0.0)
Articulation and language	0	(0.0)	3	(14.3)
Poor academic progress	0	(0.0)	2	(9.5)
Stuttering	0	(0.0)	2	(9.5)
Poor auditory discrimination or suspected hearing problem	0	(0.0)	1	(4.8)
Needs extra or individualized help	0	(0.0)	1	(4.8)
Referral suggested by parent	0	(0.0)	1	(4.8)
Miscellaneous	0	(0.0)	1	(4.8)

Note. Percentages may total to more than 100 since more than one reason for referral may have been listed for each student.

Table 5

Reasons for Referral of Limited English Proficient and English Proficient Speech/Language Handicapped Students As Recorded in Speech Folders

	English proficiency status			
	LEP		Non-LEP	
Reason for referral	#	(%)	#	(%)
Total sample				
Articulation	8	(57.1)	6	(37.5)
Stuttering	0	(0.0)	3	(18.8)
Language	3	(21.4)	2	(12.5)
Speech & language	0	(0.0)	2	(12.5)
Other	3	(21.4)	3	(18.8)
TOTAL	14	(100.0)	16	(100.0)
District 1				
Articulation	1	(100.0)	5	(41.7)
Stuttering	0	(0.0)	2	(16.7)
Language	0	(0.0)	2	(16.7)
Speech & language	0	(0.0)	2	(16.7)
Other	0	(0.0)	1	(8.3)
TOTAL	1	(100.0)	12	(100.0)
District 2				
Articulation	6	(75.0)	1	(25.0)
Stuttering	0	(0.0)	1	(25.0)
Language	0	(0.0)	0	(0.0)
Speech & language	0	(0.0)	0	(0.0)
Other	2	(25.0)	2	(50.0)
TOTAL	8	(100.0)	4	(100.0)
District 3				
Articulation	1	(20.0)	- [a]	-
Stuttering	0	(0.0)	-	-
Language	3	(60.0)	-	-
Speech & language	0	(0.0)	-	-
Other	1	(20.0)	-	-
TOTAL	5	(100.0)	-	-

[a] Data were missing for all non-LEPs from this district.

Table 6

Referral Sources for Limited English Proficient and English Proficient Speech/Language Handicapped Students

Referral source	English proficiency status			
	LEP		Non-LEP	
	#	(%)	#	(%)
Teacher	16	(100.0)	8	(62.0)
Speech screening	0	(0.0)	1	(8.0)
Other	0	(0.0)	4	(31.0)
TOTAL	16	(100.0)	13	(100.0)

Table 7

Primary Home Language of Limited English Proficient and English Proficient Speech/Language Handicapped Students At Initial Placement

	English proficiency status			
	LEP		Non-LEP	
Home language	#	(%)	#	(%)
Total sample				
Spanish	12	(50.0)	7	(25.0)
English	4	(16.7)	11	(39.3)
Both	3	(12.5)	4	(14.3)
No information	5	(20.8)	6	(21.4)
TOTAL	24	(100.0)	28	(100.0)
District 1				
Spanish	1	(100.0)	6	(40.0)
English	0	(0.0)	5	(33.3)
Both	0	(0.0)	4	(26.7)
No information	0	(0.0)	0	(0.0)
TOTAL	1	(100.0)	15	(100.0)
District 2				
Spanish	8	(80.0)	1	(20.0)
English	0	(0.0)	1	(20.0)
Both	1	(10.0)	0	(0.0)
No information	1	(10.0)	3	(60.0)
TOTAL	10	(100.0)	5	(100.0)
District 3				
Spanish	3	(23.1)	0	(0.0)
English	4	(30.8)	5	(62.5)
Both	2	(15.4)	0	(0.0)
No information	4	(30.8)	3	(37.5)
TOTAL	13	(100.0)	8	(100.0)

Table 8

Number and Percentage of Limited English Proficient and English Proficient Speech/Language Handicapped Students Who Were Retained Prior to Special Education Placement

	English proficiency status			
	LEP (n = 24)		Non-LEP (n = 28)	
Retention history	#	(%)	#	(%)
Retained	0	(0.0)	2	(7.1)
Not retained	4	(16.7)	12	(42.9)
No information	20	(83.3)	14	(50.0)
TOTAL	24	(100.0)	28	(100.0)

Table 9

Tests Administered at Initial Placement and at Reevaluation by Type of Test - District 1

(N = 14; Non-LEPs only)

Area/test	Initial placement		Reevaluation	
	#[a]	(%)[b]	#[a]	(%)[b]
Articulation tests				
Goldman-Fristoe Test of Articulation	8	(57.0)	9	(64.0)
Photo Articulation Test	3	(21.0)	1	(7.0)
Weiss Comprehensive Articulation Test	3	(21.0)	1	(7.0)
Articulation Subtest of the Test of Oral Language Development	0	(0.0)	1	(7.0)
Fluency tests				
Fluency Checklist	0	(0.0)	2	(14.0)
Fluency Observation	0	(0.0)	3	(21.0)
Fluency: Other	0	(0.0)	1	(7.0)
Language development tests				
Durrell Listening Comprehension Test	1	(7.0)	1	(7.0)
Durrell Sentence Memory Test	1	(7.0)	0	(0.0)
Houston Test of Language Development	1	(7.0)	0	(0.0)
Illinois Test of Psycholinguistic Abilities	0	(0.0)	1	(7.0)
Mecham Verbal Language Development Scale	1	(7.0)	0	(0.0)
Peabody Picture Vocabulary Test (English)	7	(50.0)	8	(57.0)
Preschool Language Scale	1	(7.0)	0	(0.0)
Test of Auditory Comprehension of Language (English)	1	(7.0)	3	(21.0)
Test of Auditory Comprehension of Language (Spanish)	1	(7.0)	3	(21.0)
Test of Oral Language Development	13	(93.0)	11	(79.0)
Language dominance/proficiency				
Language Assessment Scales	0	(0.0)	1	(7.0)
Language sample	10	(71.0)	4	(29.0)
Voice				
Voice Observation	0	(0.0)	7	(50.0)

[a] Number of administrations.

[b] Percentage of sample to whom test was given.

Table 9, continued

Area/test	Initial placement #[a]	Initial placement (%)[b]	Reevaluation #[a]	Reevaluation (%)[b]
Other language tests				
Communication Evaluation Chart	1	(7.0)	0	(0.0)
Informal diagnostics	1	(7.0)	0	(0.0)
Say What I Say	1	(7.0)	0	(0.0)
Achievement tests				
California Test of Basic Skills	0	(0.0)	1	(7.0)
Wide Range Achievement Test	0	(0.0)	1	(7.0)
Aptitude/IQ tests				
Slosson Intelligence Test	0	(0.0)	7	(50.0)
Test of Nonverbal Intelligence	0	(0.0)	2	(14.0)
Other tests				
Observation (unspecified)	0	(0.0)	1	(7.0)
Therapist-made assessment materials	1	(7.0)	0	(0.0)

Table 10

Tests Administered at Initial Placement and at Reevaluation by Type of Test - District 2

Area/test	LEP (n = 10)				Non-LEP (n = 5)			
	Initial placement		Re-evaluation		Initial placement		Re-evaluation	
	#[a]	(%)[b]	#[a]	(%)[b]	#[a]	(%)[b]	#[a]	(%)[b]
Articulation								
Austin Spanish Articulation Test	2	(20.0)	1	(10.0)	0	(0.0)	0	(0.0)
Goldman-Fristoe Test of Articulation	8	(80.0)	9	(90.0)	4	(80.0)	3	(60.0)
Informal articulation testing (English)	1	(10.0)	0	(0.0)	0	(0.0)	0	(0.0)
Informal articulation testing (Spanish)	1	(10.0)	0	(0.0)	0	(0.0)	0	(0.0)
Photo Articulation Test	2	(20.0)	0	(0.0)	0	(0.0)	1	(20.0)
Fluency								
Fluency Checklist	0	(0.0)	0	(0.0)	0	(0.0)	1	(20.0)
Student Interview	0	(0.0)	0	(0.0)	1	(20.0)	0	(0.0)
Language development								
Carrow Elicited Language Inventory	0	(0.0)	0	(0.0)	1	(20.0)	0	(0.0)
Dallas Preschool Screening	0	(0.0)	0	(0.0)	2	(40.0)	0	(0.0)
Illinois Test of Psycho-linguistic Abilities	0	(0.0)	1	(10.0)	0	(0.0)	0	(0.0)
Michigan Oral Language Test	0	(0.0)	0	(0.0)	1	(20.0)	1	(20.0)
Peabody Picture Vocabulary Test (English)	6	(60.0)	5	(50.0)	3	(60.0)	3	(60.0)
Peabody Picture Vocabulary Test (Spanish)	1	(10.0)	0	(0.0)	0	(0.0)	0	(0.0)
Test of Auditory Comprehension of Language (English)	4	(40.0)	1	(10.0)	4	(80.0)	1	(20.0)
Test of Auditory Comprehension of Language (Spanish)	4	(40.0)	0	(0.0)	1	(20.0)	0	(0.0)
Test of Oral Language Development	0	(0.0)	6	(60.0)	1	(20.0)	2	(40.0)
Token Test for Children	0	(0.0)	0	(0.0)	0	(0.0)	1	(20.0)

[a] Number of administrations.
[b] Percentage of sample to whom test was given.

Table 10, continued

Area/test	LEP (n = 10)				Non-LEP (n = 5)			
	Initial placement		Re-evaluation		Initial placement		Re-evaluation	
	#[a]	(%)[b]	#[a]	(%)[b]	#[a]	(%)[b]	#[a]	(%)[b]
Language dominance/ proficiency								
Woodcock Language Proficiency Scale	0	(0.0)	2	(20.0)	0	(0.0)	1	(20.0)
Language sample	2	(20.0)	0	(0.0)	0	(0.0)	0	(0.0)
Voice observation	0	(0.0)	0	(0.0)	0	(0.0)	1	(20.0)
Other language tests								
Communication Evaluation Chart	0	(0.0)	0	(0.0)	1	(20.0)	0	(0.0)
Diagnostic Speech Analysis	4	(40.0)	2	(20.0)	3	(60.0)	0	(0.0)
Oral Language Screening	0	(0.0)	0	(0.0)	0	(0.0)	1	(20.0)
Achievement								
Metropolitan Achievement Test	1	(10.0)	0	(0.0)	1	(20.0)	0	(0.0)
Systems Go	1	(10.0)	0	(0.0)	0	(0.0)	0	(0.0)
Woodcock-Johnson Psycho-Educational Battery	0	(0.0)	2	(20.0)	0	(0.0)	0	(0.0)
Aptitude/IQ								
Slosson IQ Test	0	(0.0)	1	(10.0)	0	(0.0)	0	(0.0)
Other tests or procedures								
Speech-hearing screening	1	(10.0)	0	(0.0)	0	(0.0)	0	(0.0)

Table 11

Tests Administered at Initial Placement and at Reevaluation by Type of Test - District 3

	LEP (n = 13)				Non-LEP (n = 8)			
	Initial placement		Re-evaluation		Initial placement		Re-evaluation	
Area/test	#[a]	(%)[b]	#[a]	(%)[b]	#[a]	(%)[b]	#[a]	(%)[b]
Articulation								
Arizona Articulation Proficiency Scale	2	(15.0)	1	(7.0)	1	(13.0)	2	(25.0)
Assessment of Phonological Processes	1	(7.0)	0	(0.0)	0	(0.0)	0	(0.0)
Austin Spanish Articulation Test	1	(7.0)	0	(0.0)	0	(0.0)	0	(0.0)
Fisher-Logeman Articulation Test	2	(15.0)	0	(0.0)	1	(13.0)	1	(13.0)
Goldman-Fristoe Test of Articulation	3	(23.0)	2	(15.0)	2	(25.0)	0	(0.0)
Southwestern Spanish Articulation Test	0	(0.0)	1	(7.0)	0	(0.0)	0	(0.0)
Fluency								
Fluency observation	0	(0.0)	0	(0.0)	0	(0.0)	1	(13.0)
Stuttering observation	0	(0.0)	2	(15.0)	0	(0.0)	2	(25.0)
Language development								
Assessment of Children's Language Comprehension	1	(7.0)	0	(0.0)	0	(0.0)	0	(0.0)
Bangs Vocabulary Comprehension Scale	0	(0.0)	1	(7.0)	2	(25.0)	0	(0.0)
Clinical Evaluation of Language Functions	0	(0.0)	4	(31.0)	0	(0.0)	1	(13.0)
Dallas Preschool Screening	0	(0.0)	0	(0.0)	1	(13.0)	0	(0.0)
Del Rio Language Test (English)	3	(23.0)	2	(15.0)	2	(25.0)	0	(0.0)
Del Rio Language Test (Spanish)	1	(7.0)	1	(7.0)	0	(0.0)	0	(0.0)
Expressive One-Word Vocabulary Test	0	(0.0)	5	(38.0)	0	(0.0)	2	(25.0)
Illinois Test of Psycholinguistic Abilities	0	(0.0)	1	(7.0)	0	(0.0)	0	(0.0)
Listening Comprehension Assessment (Paragraphs)	0	(0.0)	1	(7.0)	0	(0.0)	0	(0.0)

[a] Number of administrations.

[b] Percentage of sample to whom test was given.

Table 11, continued

Area/test	LEP (n = 13)				Non-LEP (n = 8)			
	Initial placement		Re-evaluation		Initial placement		Re-evaluation	
	#[a]	(%)[b]	#[a]	(%)[b]	#[a]	(%)[b]	#[a]	(%)[b]
Monterrey Language Program	2	(15.0)	0	(0.0)	4	(50.0)	0	(0.0)
Northwestern Syntax Screening Test	2	(15.0)	0	(0.0)	0	(0.0)	1	(13.0)
Peabody Picture Vocabulary Test (English)	9	(69.0)	2	(15.0)	6	(75.0)	3	(38.0)
Peabody Picture Vocabulary Test (Spanish)	1	(7.0)	0	(0.0)	0	(0.0)	0	(0.0)
Structured Photographic Expressive Language Test	0	(0.0)	5	(38.0)	0	(0.0)	1	(13.0)
Test of Auditory Comprehension of Language (English)	10	(77.0)	1	(7.0)	7	(88.0)	1	(13.0)
Test of Auditory Comprehension of Language (Spanish)	3	(23.0)	0	(0.0)	0	(0.0)	0	(0.0)
Test of Oral Language Development	5	(38.0)	3	(23.0)	0	(0.0)	3	(38.0)
Token Test for Children	0	(0.0)	0	(0.0)	1	(13.0)	1	(13.0)
Toronto Test of Receptive Vocabulary	1	(7.0)	0	(0.0)	0	(0.0)	0	(0.0)
Utah Test of Language Development	1	(7.0)	0	(0.0)	1	(13.0)	0	(0.0)
Wigg-Semel Test of Language Concepts	1	(7.0)	1	(7.0)	0	(0.0)	0	(0.0)
The Word Test	0	(0.0)	4	(31.0)	0	(0.0)	1	(13.0)
Language dominance/ proficiency								
Bilingual Syntax Measure	2	(15.0)	0	(0.0)	0	(0.0)	0	(0.0)
James Language Dominance Test	1	(7.0)	0	(0.0)	0	(0.0)	0	(0.0)
Language Assessment Battery	1	(7.0)	0	(0.0)	0	(0.0)	0	(0.0)
Language Assessment Scales (English)	0	(0.0)	1	(7.0)	0	(0.0)	0	(0.0)
Language Assessment Scales (Spanish)	0	(0.0)	1	(7.0)	0	(0.0)	0	(0.0)
Primary Assessment of Language	0	(0.0)	1	(7.0)	0	(0.0)	0	(0.0)
Pictorial Test of Bilingualism and Language Dominance	1	(7.0)	0	(0.0)	0	(0.0)	0	(0.0)

Table 11, continued

Area/test	LEP (n = 13)				Non-LEP (n = 8)			
	Initial placement		Re-evaluation		Initial placement		Re-evaluation	
	#[a]	(%)[b]	#[a]	(%)[b]	#[a]	(%)[b]	#[a]	(%)[b]
Language sample	11	(85.0)	10	(77.0)	8	(100.0)	6	(75.0)
Voice observation	0	(0.0)	2	(15.0)	0	(0.0)	1	(13.0)
Other language tests								
Communication Evaluation Chart	0	(0.0)	0	(0.0)	1	(13.0)	0	(0.0)
Informal Wh Questions	1	(7.0)	0	(0.0)	0	(0.0)	0	(0.0)
Language Screening Assessment Tool	0	(0.0)	1	(7.0)	0	(0.0)	0	(0.0)
Aptitude/IQ								
Bicultural Test of Non-verbal Reasoning	1	(7.0)	0	(0.0)	0	(0.0)	0	(0.0)
Boehm Test of Basic Concepts	2	(15.0)	0	(0.0)	1	(13.0)	1	(13.0)
Detroit Test of Learning Aptitude	1	(7.0)	1	(7.0)	0	(0.0)	1	(13.0)
(District) Primary Screening Assessment	0	(0.0)	3	(23.0)	0	(0.0)	0	(0.0)
Wechsler Intelligence Scale for Children-Revised	1	(7.0)	0	(0.0)	0	(0.0)	0	(0.0)
Other tests								
Full Range Action Agent Test	0	(0.0)	1	(7.0)	1	(13.0)	0	(0.0)
Oral-Peripheral Exam	0	(0.0)	0	(0.0)	1	(13.0)	0	(0.0)

Table 12

Number and Percentage of Students Tested with Each of Ten Types of Tests

Area tested	District 1 LEP[a]	1 Non-LEP (n = 14) #	1 Non-LEP (n = 14) (%)	2 LEP (n = 10) #	2 LEP (n = 10) (%)	2 Non-LEP (n = 5) #	2 Non-LEP (n = 5) (%)	3 LEP (n = 13) #	3 LEP (n = 13) (%)	3 Non-LEP (n = 8) #	3 Non-LEP (n = 8) (%)
Initial Placement											
Articulation	-	14	(100.0)	10	(100.0)	4	(80.0)	7	(54.0)	3	(38.0)
Fluency	-	0	(0.0)	0	(0.0)	1	(20.0)	0	(0.0)	0	(0.0)
Language development	-	14	(100.0)	7	(70.0)	5	(100.0)	13	(100.0)	7	(88.0)
Language dominance/ proficiency	-	0	(0.0)	0	(0.0)	0	(0.0)	2	(15.0)	0	(0.0)
Language sample	-	10	(71.0)	2	(20.0)	0	(0.0)	11	(85.0)	8	(100.0)
Voice	-	0	(0.0)	0	(0.0)	0	(0.0)	0	(0.0)	0	(0.0)
Other language tests	-	2	(14.0)	4	(40.0)	3	(60.0)	1	(7.0)	1	(13.0)
Achievement	-	0	(0.0)	1	(10.0)	1	(20.0)	0	(0.0)	0	(0.0)
Aptitude/IQ	-	0	(0.0)	0	(0.0)	0	(0.0)	5	(38.0)	1	(13.0)
Other areas	-	1	(7.0)	1	(10.0)	0	(0.0)	0	(0.0)	2	(25.0)
Reevaluation											
Articulation	-	12	(86.0)	9	(90.0)	4	(80.0)	3	(23.0)	3	(38.0)
Fluency	-	6	(43.0)	0	(0.0)	1	(20.0)	2	(15.0)	3	(38.0)
Language development	-	11	(79.0)	9	(90.0)	5	(100.0)	13	(100.0)	7	(88.0)
Language dominance/ proficiency	-	1	(7.0)	2	(20.0)	1	(20.0)	2	(15.0)	0	(0.0)
Language sample	-	4	(29.0)	0	(0.0)	0	(0.0)	10	(77.0)	6	(75.0)
Voice	-	7	(50.0)	0	(0.0)	1	(20.0)	2	(15.0)	1	(13.0)
Other language tests	-	0	(0.0)	2	(20.0)	1	(20.0)	1	(7.0)	0	(0.0)
Achievement	-	2	(14.0)	2	(20.0)	0	(0.0)	0	(0.0)	1	(13.0)
Aptitude/IQ	-	7	(50.0)	1	(10.0)	0	(0.0)	3	(23.0)	2	(25.0)
Other areas	-	1	(7.0)	0	(0.0)	0	(0.0)	1	(7.0)	0	(0.0)

[a] IEPs were available for this district.

Table 13

Areas Included in Typical Test Batteries of Limited English Proficient and English Proficient Speech/Language Handicapped Children at Initial Placement and at Reevaluation by District[a]

	English proficiency status			
	LEP		Non-LEP	
District	Initial	Reevaluation	Initial	Reevaluation
1	–[b]	–	Articulation Language development Language sample	Articulation Language development Voice Aptitude/IQ
2	Articulation Language development	Articulation Language development	Articulation Language development Other language test	Articulation Language development
3	Articulation Language development Language sample	Language development Language sample	Language development Language sample	Language development Language sample

[a] An area was considered to be a part of a typical test battery if an instrument which measured it was administered to at least 50% of students.

[b] No data for LEP students were available from this district.

Table 14

Mean Number of Tests Per Child Administered to Limited English Proficient and English Proficient Speech/Language Handicapped Students at Initial Placement and Reevaluation by Type of Test and by District

Type of test	District 1				District 2				District 3			
	LEP[a] (n = 0)		Non-LEP (n = 14)		LEP (n = 10)		Non-LEP (n = 5)		LEP (n = 13)		Non-LEP (n = 8)	
	Initial placement	Reevaluation	Initial placement	Reevaluation	Initial placement	Reevaluation	Initial placement	Reevaluation	Initial placement	Reevaluation	Initial placement	Reevaluation
Articulation	-	-	1.0	0.9	1.4	1.0	0.8	0.8	0.7	0.3	0.5	0.4
Fluency	-	-	0.0	0.4	0.0	0.0	0.2	0.2	0.0	0.2	0.0	0.4
Language development	-	-	1.9	2.0	1.5	1.3	2.6	1.6	3.1	2.3	3.0	1.8
Language dominance/ proficiency	-	-	0.0	0.1	0.0	0.2	0.0	0.2	1.0	0.2	0.0	0.0
Language sample	-	-	0.7	0.5	0.2	0.0	0.0	0.0	0.8	0.8	1.0	0.8
Voice	-	-	0.0	0.5	0.0	0.0	0.0	0.2	0.0	0.2		0.1
Other language test	-	-	0.2	0.0	0.4	0.2	0.8	0.2	0.1	0.1		0.0
Achievement	-	-	0.0	0.1	0.2	0.2	0.2	0.0	0.0	0.0	0.0	0.0
Aptitude/IQ	-	-	0.0	0.6	0.0	0.1	0.0	0.0	0.4	0.2	0.1	0.2
Other areas	-	-	0.1	0.1	0.1	0.0	0.0	0.0	0.0	0.1	0.3	0.0
TOTAL TESTS ADMINISTERED	-	-	3.9	5.0	3.8	2.9	4.6	3.2	5.6	4.5	5.0	3.6

[a] No LEPs were available for this district.

Table 15

Mean Number of Tests Per Child Administered to Limited English Proficient and English Proficient Speech/Language Handicapped Students at Initial Placement and at Reevaluation by Type of Test

Test area	English proficiency status			
	LEP (n = 23)		Non-LEP (n = 13)	
	M Initial placement	M Re-evaluation	M Initial placement	M Re-evaluation
Articulation	1.0	0.6	0.6	0.5
Fluency	0.0	0.1	0.1	0.3
Language development	2.4	1.9	2.8	1.7
Language dominance/proficiency	0.3	0.2	0.0	0.1
Language sample	0.6	0.4	0.6	0.5
Voice	0.0	0.1	0.0	0.1
Other language tests	0.2	0.1	0.4	0.1
Achievement	0.1	0.1	0.1	0.1
Aptitude/IQ	0.2	0.2	0.1	0.2
Other areas	0.1	0.1	0.1	0.0
TOTAL TESTS ADMINISTERED	4.8	3.6	4.8	3.5

Note. Data are based on districts 2 and 3.

Table 16

Primary Home Language of Limited English Proficient and English Proficient Speech/Language Handicapped Students as Reported at Reevaluation[a]

	English proficiency status			
	LEP (n = 14)		Non-LEP (n = 23)	
Language	#	(%)	#	(%)
Spanish	1	(7.1)	0	(0.0)
English	0	(0.0)	2	(8.7)
Both	0	(0.0)	2	(8.7)
Missing	13	(92.9)	19	(82.6)
TOTAL	14	(100.0)	23	(100.0)

[a] Data were available for Districts 1 and 3 only.

Table 17

Dominant Language at School of Limited English Proficient and English Proficient Speech/Language Handicapped Students as Reported at Reevaluation[a]

	English proficiency status			
	LEP (n = 14)		Non-LEP (n = 23)	
Language	#	(%)	#	(%)
Spanish	1	(7.1)	0	(0.0)
English	4	(28.6)	7	(30.4)
Both	0	(0.0)	1	(4.3)
Missing	9	(64.3)	15	(65.2)
TOTAL	14	(100.0)	23	(100.0)

[a] Data were available for Districts 1 and 3 only.

Table 18

Language of Administration for Reevaluations of Limited English Proficient and English Proficient Speech/Language Handicapped Students

	English proficiency status			
	LEP		Non-LEP	
Language	#	(%)	#	(%)
Total sample				
Spanish	18	(75.0)	13	(46.4)
English	1	(4.2)	1	(3.6)
Both	2	(8.3)	1	(3.6)
No information	3	(12.5)	13	(46.4)
TOTAL	24	(100.0)	28	(100.0)
District 1				
Spanish	0	(0.0)	2	(13.3)
English	0	(0.0)	1	(6.7)
Both	0	(0.0)	1	(6.7)
No information	1	(100.0)	11	(73.3)
TOTAL	1	(100.0)	15	(100.0)
District 2				
Spanish	7	(70.0)	4	(80.0)
English	1	(10.0)	0	(0.0)
Both	1	(10.0)	0	(0.0)
No information	1	(10.0)	1	(10.0)
TOTAL	10	(100.0)	5	(100.0)
District 3				
Spanish	11	(84.6)	7	(87.5)
English	0	(0.0)	0	(0.0)
Both	1	(7.7)	0	(0.0)
No information	1	(7.7)	1	(12.5)
TOTAL	13	(100.0)	8	(100.0)

Table 19

Reevaluation Articulation Errors of Limited English Proficient and English Proficient Speech/Language Handicapped Students by Consonant Sound and Error Type

Sound tested	English proficiency status							
	LEP (n = 10)				LEP (n = 11)			
		Type of error				Type of error		
	Total errors n	Substitutions n	Omissions n	Distortions n	Total errors n	Substitutions n	Omissions n	Distortions n
th (voiceless)	17	16	1	0	5	5	0	0
sh	13	10	0	3	4	4	0	3
s	12	9	0	3	3	0	0	3
ch	10	7	0	3	3	2	0	1
z	7	3	1	3	5	5	0	0
th (voiced)	6	6	0	0	3	3	0	0
l	5	1	1	3	0	0	0	0
j	4	2	0	2	4	1	0	3
r	3	2	0	1	2	2	0	0
v	1	1	0	0	3	2	0	1
ng	1	0	0	1	1	0	0	1
y	1	1	0	0	0	0	0	0
m	1	1	0	0	0	0	0	0
b	1	1	0	0	0	0	0	0
d	1	0	1	0	0	0	0	0
w	0	0	0	0	1	0	0	1
t	0	0	0	0	1	0	1	0

Note. No errors were made by either group on the following sounds: /p/, /n/, /h/, /g/, /k/, /f/.

Table 20

Reevaluation Articulation Errors of Limited English Proficient and English Proficient Speech/Language Handicapped Students by Blend Sound

	English proficiency status	
	LEP (n = 10)	Non-LEP (n = 11)
Sound tested[a]	n errors	n errors
br	3	0
kl	3	0
kr	3	0
pl	3	0
sl	3	0
st	3	0
dr	2	0
fl	2	0
skw	2	0
tr	1	0

Note. No errors were made by either group on the /bl/ and /hw/ sounds.

[a] All sounds were tested in the initial position.

Table 21

Frequency of Reevaluation Articulation Errors of Limited English Proficient and English Proficient Speech/Language Handicapped Students by Error Type

Error type	English proficiency status	
	LEP (n = 10)	Non-LEP (n = 11)
Substitutions		
M	6.0	2.2
SD	4.0	2.3
Minimum	0.0	0.0
Maximum	13.0	7.0
Omissions		
M	0.4	0.1
SD	0.7	0.3
Minimum	0.0	0.0
Maximum	0.2	1.0
Distortions		
M	1.9	1.2
SD	3.3	2.2
Minimum	0.0	0.0
Maximum	9.0	6.0
Blends		
M	2.5	0.0
SD	2.8	0.0
Minimum	0.0	0.0
Maximum	9.0	0.0

Table 22

Sounds Substituted at Reevaluation by Hispanic Limited English Proficient and English Proficient Speech/Language Handicapped Students

	English proficiency status	
	LEP (n = 10)	Non-LEP (n = 11)
Sound tested	Sounds substituted[a]	Sounds substituted
th (voiceless)	/t/ /f/ /d/ /s/	/f/ /d/ /s/ /t/
sh	/ch/ /j/	/ch/
s	/th (voiceless)/ /f/ /h/ /sh/ /t/ /z/	none
ch	/sh/ /t/	/sh/
z	/s/ /t/	/s/ (th (voiced)/
th (voiced)	/d/ /l/	/d/
l	/w/	none
j	/ch/ /y/	/y/
r	/w/	/w/
v	/f/	/fl/ /b/
y	/j/	none
m	/p/	none
b	/v/	none

Note. No substitution errors were made by either group on the following sounds: /w/, /ng/, /p/, /d/, /n/, /t/, /h/, /g/, /k/, /f/.

[a] Sounds substituted were listed in order of frequency. Ties have been alphabetized.

Table 23

T-Test Results for Comparisons of Misarticulations of Limited English Proficient and English Proficient Speech/Language Handicapped Students

Type of error	Mean errors: At initial placement	Mean errors: At reevaluation	t
Limited English proficient students (n = 7)			
Substitution	13.6	4.6	6.36 **
Omission	5.7	0.1	3.48 *
Distortion	2.0	1.1	1.11
Blend	4.7	1.4	2.20
English proficient students (n = 3)			
Substitution	8.7	3.0	1.63
Omission	2.0	0.3	2.50
Distortion	0.7	0.7	0.00
Blend	4.3	0.0	1.66

* $p \leq .05$
** $p \leq .001$

Table 24

Type of Speech/Language Disorder Identified at Reevaluation for Limited English Proficient and English Proficient Students

Disorder type	English proficiency status: LEP #	LEP (%)	Non-LEP #	Non-LEP (%)
Total sample				
Articulation	0	(0.0)	4	(33.3)
Articulation & language	4	(25.0)	3	(25.0)
Language	10	(62.5)	3	(25.0)
Rhythm	0	(0.0)	1	(8.3)
Other	2	(12.5)	1	(8.3)
TOTAL	16	(100.0)	12	(100.0)
District 2				
Articulation	0	(0.0)	2	(50.0)
Articulation & language	1	(20.0)	2	(50.0)
Language	3	(60.0)	0	(0.0)
Rhythm	0	(0.0)	0	(0.0)
Other	1	(20.0)	0	(0.0)
TOTAL	5	(100.0)	4	(100.0)
District 3				
Articulation	0	(0.0)	2	(25.0)
Articulation & language	3	(27.3)	1	(12.5)
Language	7	(63.6)	3	(37.5)
Rhythm	0	(0.0)	1	(12.5)
Other	1	(9.1)	1	(12.5)
TOTAL	11	(100.0)	8	(100.0)

Note. Data were available for Districts 2 and 3 only.

Table 25

Mean Number of Members on Initial and Reevaluation Placement Committees for Limited English Proficient and English Proficient Speech/Language Handicapped Students by District

	LEP			Non-LEP		
District	M Initial placement	M Re-evaluation	n	M Initial placement	M Re-evaluation	n
1	4.0	3.0	1	4.2	4.2	15
2	6.3	4.0	4	3.8	4.5	4
3	4.0	3.5	13	4.0	4.4	7
ALL	4.5	3.6	18	4.1	4.3	26

Table 26

Handicapping Conditions of Limited English Proficient and English Proficient Speech/Language Handicapped Students Following Reevaluation

Reevaluation handicap	English proficiency status: LEP #	LEP (%)	Non-LEP #	Non-LEP (%)
Total sample				
SH	15	(88.2)	20	(83.3)
Dismissed	2	(11.8)	4	(16.7)
TOTAL	17	(100.0)	24	(100.0)
District 1				
SH	0	(0.0)	11	(73.3)
Dismissed	1	(100.0)	4	(26.7)
TOTAL	1	(100.0)	15	(100.0)
District 2				
SH	6	(100.0)	4	(100.0)
Dismissed	0	(0.0)	0	(0.0)
TOTAL	6	(100.0)	4	(100.0)
District 3				
SH	9	(90.0)	6	(100.0)
Dismissed	1	(10.0)	0	(0.0)
TOTAL	10	(100.0)	6	(100.0)

Note. All students were initially found to be SLH with no secondary handicap.

Table 27

Special Education Status of Limited English Proficient and English Proficient Speech/Language Handicapped Students at the Time of Data Collection

	English proficiency status			
	LEP (n = 19)		Non-LEP (n = 10)	
Status	#	(%)	#	(%)
Dismissed	4	(21.1)	3	(30.0)
Still in special education; classified as:				
SH	11	(57.9)	7	(70.0)
LD	1	(5.3)	0	(0.0)
LD/SH	2	(10.5)	0	(0.0)
MR/SH	1	(5.3)	0	(0.0)
TOTAL	19	(100.0)	10	(100.0)

Note. All subjects were SH with no secondary handicap or dismissed as of the three-year reevaluation which occurred approximately 18 months before data collection. Data were available for Districts 2 and 3 only.

Table 28

T Tests Comparing Time in Special Education Recommended At Initial Placement and at Reevaluation for Limited English Proficient and English Proficient Speech/Language Handicapped Students

Group	Time in Special Education[a] M Initial	M Reevaluation	t	n
District 1				
LEP[b]	–	–	–	–
Non-LEP	60.0	54.4	1.00	8
District 3				
LEP	70.7	93.3	-0.83	9
Non-LEP	377.5[c]	60.0	0.98	4

Note. Data were available for two districts only.

[a] Means are given in minutes per week.

[b] No LEP subjects were available from this district.

[c] One non-LEP child from District 3 initially received speech therapy in an early childhood program for 1,350 minutes per week. If this child is excluded from the sample, M initial for District 3 non-LEPs = 53.3; M at reevaluation = 60.0; t = -1.00 and n = 3.

Figure 1

Age at Referral of Limited English Proficient and English Proficient Speech/Language Handicapped Students

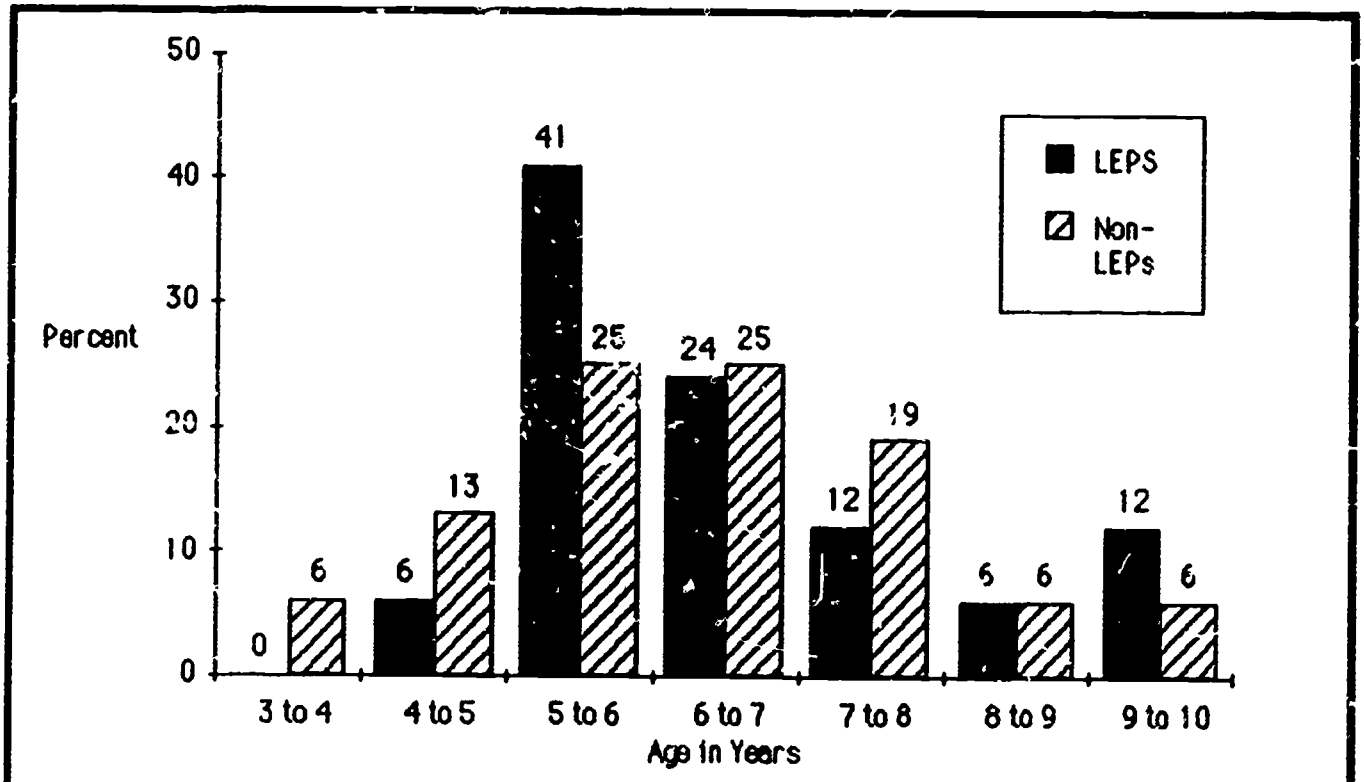

Figure 2

Grade at Referral of Limited English Proficient and English Proficient Speech/Language Handicapped Students

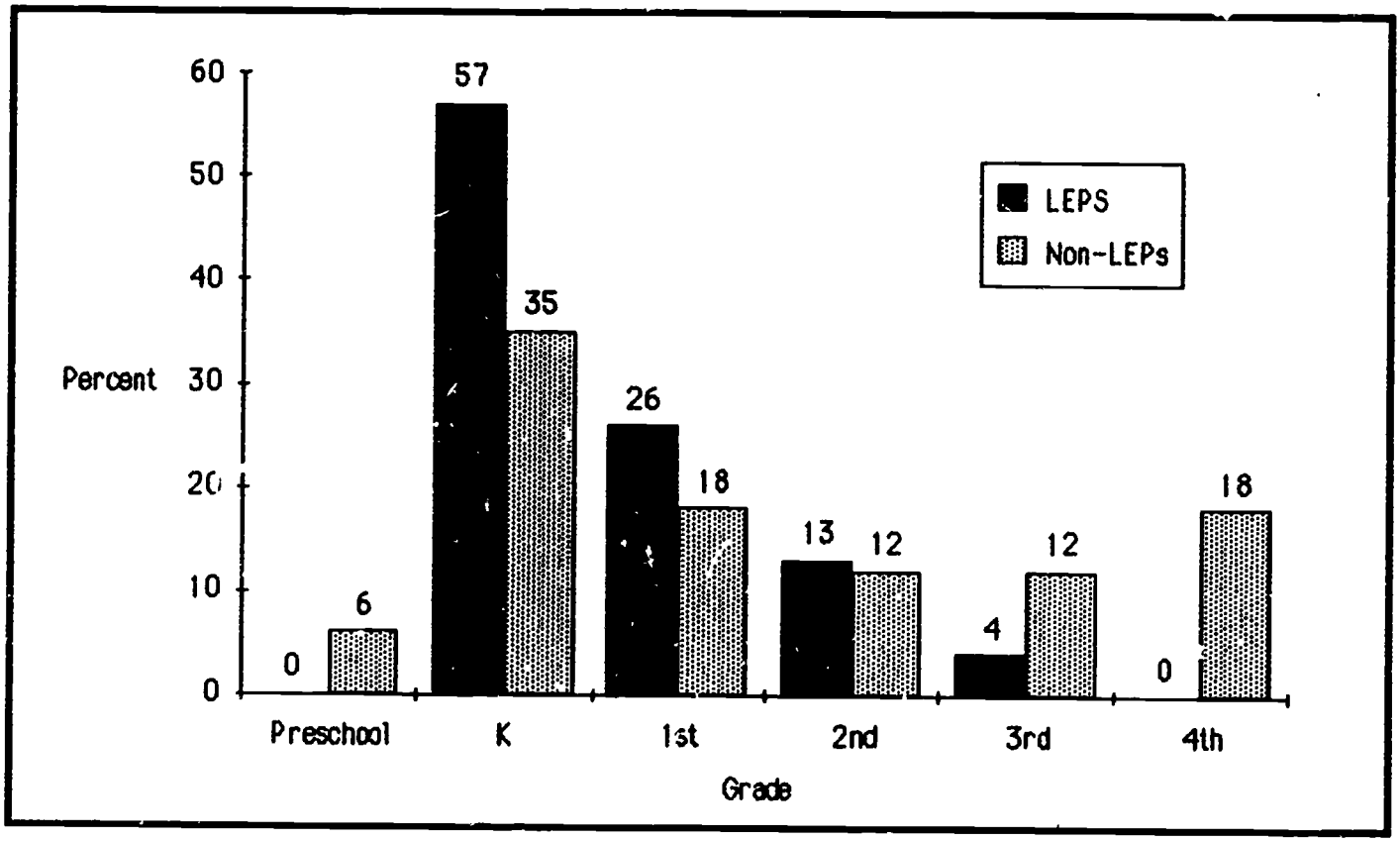

Figure 3

Number of Spanish Tests Administered to Limited English Proficient and English Proficient Speech/Language Handicapped Students at Initial Placement and at Reevaluation

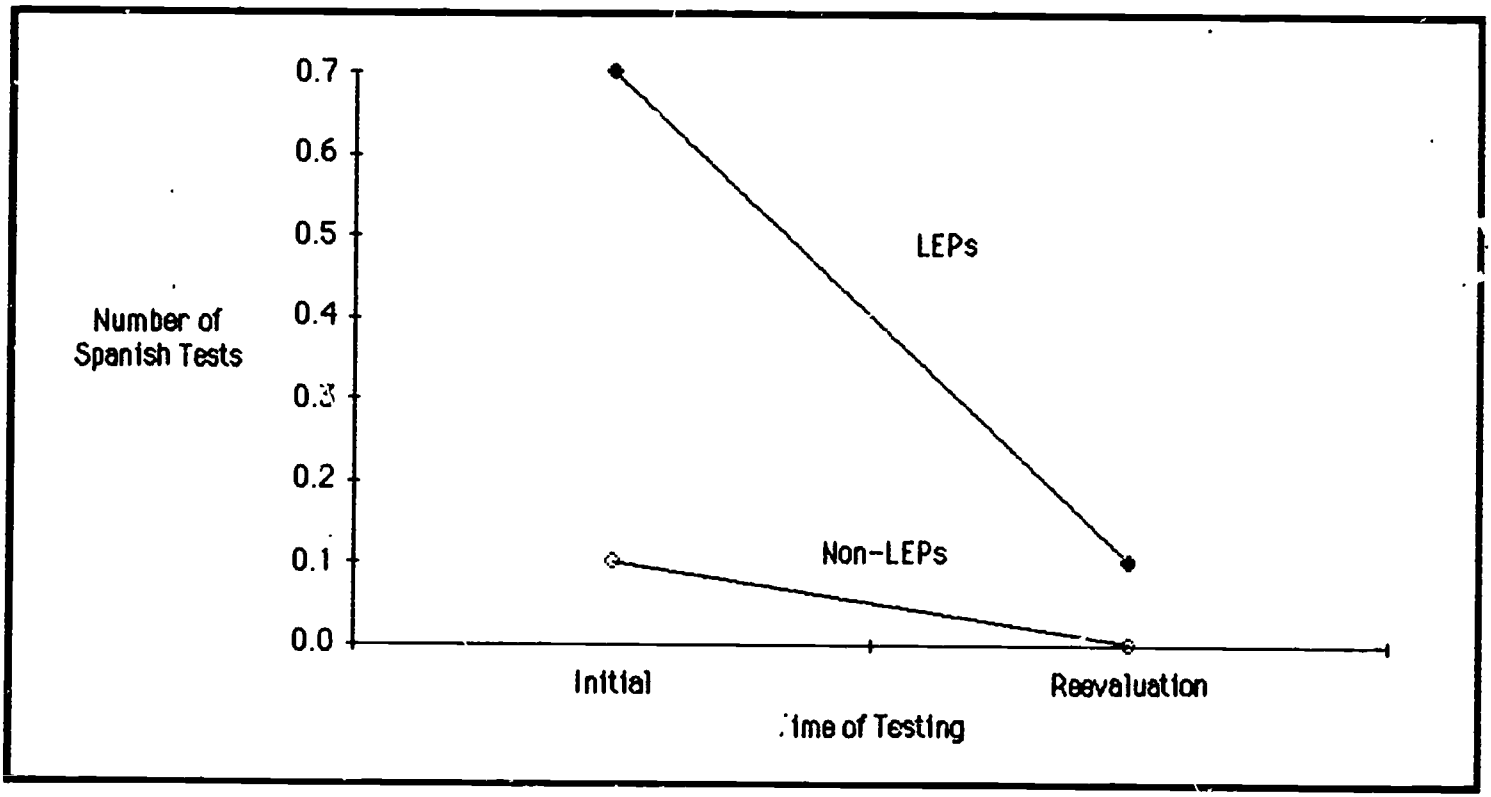

Figure 4

Number of Placement Committee Members at Reevaluation for Limited English Proficient and English Proficient Speech/Language Handicapped Students