

# Testing the Tests: An Investigation into the Effectiveness of Alternative Assessment Methods for Bilingual Language-Impaired Children

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## Abstract

Alternative language assessment procedures are gaining in prominence as authentic alternatives to traditional measures, but scant data exist regarding the relative effectiveness of the data they provide. This paper first summarizes the criteria for effective language assessment of bilingual children as documented in the literature, and then comparatively evaluates the effectiveness of research studies employing the three most-cited alternative assessment approaches: descriptive, dynamic, and curriculum-based. Conclusions regarding the impact of appropriate assessment on issues of over- and under-representation of bilingual Hispanic students are also discussed.

## Testing the Tests: An Investigation into the Effectiveness of Alternative Assessment Methods for Bilingual Language-Impaired Children

Limited data exist regarding the impact of limited English proficiency on the referral and placement of bilingual children in special education and speech-language programs. The need for this type of information is becoming increasingly urgent. Minority populations are growing at unprecedented rates and the nation's classrooms are becoming rapidly multicultural. Of the 63 racial/cultural categories identified by the US Bureau of the Census (2000), Hispanics comprise the fastest growing minority population in the United States—having grown from about 9 % of the United States population in 1990, to about 13 % in 2000. Whereas in 1982, Hispanics comprised only 1 in 10 school-aged children, this number is expected to increase to 1 in 3 by the year 2020 (Gersten & Woodward, 1994; US Census Report, 2000).

The assessments of children who are linguistically different as well as culturally diverse has become one of education's greatest challenges. The stakes multiply in importance for students being assessed for special education or speech-language pathology (SLP) services. For such students, the assessment process has been called into question, especially in light of the fact that students from minority populations (especially Hispanics and African-Americans) are disproportionately overrepresented in special education. For example, according to data cited by Correa and Heward (2000), although 32.5 % of the entire school-age population can be classified as minority, nearly 40 % of children identified as mild or moderately mentally impaired belong to a minority group. In terms of the Hispanic population, evidence of both over- and under-representation exists. Current data indicate that 80% of Hispanics referred for special education services are placed in learning disability (LD) and speech-language pathology (SLP) programs—both of which directly involve language proficiency and competence. The rise in the number of Hispanic students now being referred to LD and SLP programs has been accompanied by a comparable reduction in the number of Hispanic students now being placed in programs for children who are mildly mentally retarded or gifted and talented (Ortiz, 1997).

Several possible causes for this disparity have been cited in the literature. Burnett (2000) attributes the crisis to the national scarcity of qualified bilingual personnel and the lack of appropriate assessment tools, but Ortiz and Garcia (1995) place the blame on a broader set of causative factors including

the absence of guidelines and data which can be used to develop procedures which (a) help distinguish cultural or linguistic differences from disabilities, (b) yield a non-biased assessment, (c) assure due process in decision making, and (d) result in individualized education programs which help language-minority students with disabilities achieve their potential

(p.147).

Most teachers and special education personnel have not been trained to determine differentially whether the academic problems that many bilingual students experience stem from a language learning disability or a language difference associated with typical second language acquisition (Gersten & Woodward, 1994). As a result, many students are misidentified and misplaced in special education programs with educators who are ill-equipped to address academic issues related to second language learning (Gersten & Woodward, 1994; Jitendra & Rohena-Diaz, 1996).

The issue of non-biased assessment for students who are culturally and linguistically diverse has received adequate attention in both legislation and litigation. As early as 1964, Title IV of the Civil Rights Act required that language assessment of children with limited English proficiency be conducted in both the native language and English. This principle was subsequently re-affirmed by both Section 504 of the Rehabilitation Act of 1973 and the Education for All Handicapped Children Act of 1974, subsequently renamed the Individuals with Disabilities Education Act (IDEA) in 1990. The latest (1997) IDEA amendments revisited the issue by specifying that assessment for the purpose of identifying and placing children with disabilities should be conducted in the child's native language.

In spite of adequate legal basis, the reality of non-biased assessment has not been easy to attain in any of the three areas typically assessed by special services personnel—psychological, language, or educational. Traditionally, standardized, norm-referenced measures have been used to obtain much of this information, even though such measures involve testing primarily in English, are norm-referenced on monolingual English speakers, and are incapable of assessing the student's relative English and native language proficiency (Jitendra, 1995). The problem is compounded by the fact that few tests exist in Spanish, and of the few available, most are translated versions of English tests. Such translations contain items that are (a) culturally inappropriate, (b) linguistically incorrect, or (c) contextually irrelevant (Maldonado, 2000). Jitendra (1995), in her discussion of limitations of traditional 'discrete point' language assessment measures, categorizes such tests as "spurious, decontextualized, inadequate, instructionally aloof and thus unsuitable for making decisions regarding eligibility, placement, and instructional decision making" (p. 45). In the specific context of bilingual proficiency, standardized tests not only are inadequate in terms of reliability and norming but also biased in their ability to provide information capable of distinguishing a language learning disability from a language difference (Ortiz, 1997).

If the situation is to improve, qualitative changes are needed in the assessment of bilingual students. Burnette (2000) specifies in her list of solutions and best practices the principle of individualized assessment that takes into account not only the child but also his/her environment. Burnett recommends that traditional instruments be combined with qualitative assessment measures from a variety of sources (such as observations and interviews) and from a variety of settings (school, home, community).

Questions remain about the range of alternative assessment procedures that might be used to conduct accurate and non-biased assessment of bilingual students with suspected language learning disabilities. This paper seeks to shed light on this issue by (a) summarizing the characteristics of effective alternative bilingual language assessment, as documented in the literature; (b) evaluating the effectiveness of research studies employing alternative language assessment measures, and (c) drawing conclusions regarding the impact of appropriate assessment on issues of over- and under-representation of bilingual Hispanic students in special education and related services programs.

### Review of Literature

#### *Criteria for Effective Bilingual Assessment*

For the purposes of analyzing the effectiveness of the assessment measures employed in the literature being reviewed, five criteria were selected as essential for determining assessment effectiveness. These were drawn from the general literature on alternative language testing related to bilingual language assessment of children with special needs (Baca, 1994; Barrera, 1995; Burnette, 2000; Jitendra, Rohena-Diaz, & Nolet, 1998; Ortiz & Garcia, 1995). Alternative assessment measures were evaluated as to whether they conformed to each of the criteria as outlined below:

1. *Native Language and Classroom Language Assessment (L1 & L2)*. Measures employed /discussed in the document should be capable of assessing both the child's native language (L1) and the classroom language (L2). Ortiz & Garcia (1995) stated clearly that "every language minority child referred to special education should receive a comprehensive language assessment in his or her native language and in English" (p. 475). Baca (1990) described

the issue of 'English-only testing' of language minority students as perhaps the fundamental cause of minority over-representation in special education programs.

2. *Comprehensive Language Assessment (CLA)*. Procedures described/discussed in the document should provide in-depth information regarding language performance. According to Burnette (2000), a description of "in-depth performance" is based on whether the assessment measure allows the evaluator to obtain descriptive information from a variety of sources and in a variety of environments.

3. *Language Dominance Assessment (LDA)*. The approach outlined in the document should specifically address the issue of language dominance. Language dominance, as defined by Jitendra (1996), "is the language most often used by the student for communication and self-expression" (p.43). Ortiz (1997) expanded the concept when she described dominant language as

the language the student: (a) first learned, (b) prefers to use, (c) consistently chooses to use when speaking with bilingual individuals who speak the same dialect, and/or (d) shows the greatest ease in using. It is also the language that seems to have a greater influence on the other language. (p. 43)

4. *Language Proficiency Assessment (LPA)*. Procedures described/discussed in the document should assess relative language proficiency. Language proficiency can be defined as the level of competency an individual demonstrates in a particular language. Ortiz (1997) listed four distinguishing characteristics of a language proficient individual as (a) the ability to understand messages even if distorted; (b) the ability to express meaning clearly; (c) the ability to adequately use language in a variety of settings; and (d) the ability to self-correct.

5. *Intervention and Placement Information (IPI)*. The results (outcomes) of the specific alternative assessment procedures should provide information regarding language learning capacity and appropriate placement. A mere description of students' language performance is insufficient to provide adequate information for placement purposes. Results should reflect the fact that effective assessment should always lead to appropriate placement (Baca, 1990).

#### *Organizational Schema*

The research literature contains a variety of terms referring to non-standardized assessment approaches. These include "naturalistic assessment" (Baca, 1990), "alternative assessment" "criterion-referenced assessment" (Ruiz, 1995), "informal assessment" (Burnett, 2000) and "non-psychometric or non-standardized assessment" (Baca, 1990). For the purposes of this study, the term "alternative" is favored as a means of avoiding the ambiguity produced by the subtle definitional variations of the other terms. The "non-standardized" nature of these approaches has given rise to a quantity and variety of procedures that are virtually unlimited. However, the three most frequently cited alternative approaches in the bilingual special education literature—(a) descriptive, (b) dynamic, and (c) curriculum-based approaches—comprise the categories addressed in this review (Baca, 1990; Cline, 1998; Jitendra, 1996; Olswang & Bain, 1996). For purposes of specificity, the broad category of descriptive approaches is further subdivided to accommodate two types of descriptive language assessment procedures: (a) language sample analysis and (b) observational/rating scales. What follows is a description/definition of each of these approaches as outlined in the literature.

*Descriptive Approaches*. The goal of the descriptive assessment approach to bilingual assessment, as articulated by Damico (1991), is to "collect data that are meaning-based and integrative" (p.179). Thus this approach (frequently referred to as a 'naturalistic' approach) aims to describe and analyze communication as it occurs across languages, in a variety of naturalistic contexts and interactive partners. In the context of bilingual assessment, this approach is not only capable of assessing both native and second language competence but is also useful for providing information on the individual's relative language proficiency (Jitendra, 2000).

Procedures employed by the naturalistic approach are numerous, highly individualized, and varied. In the area of language assessment, three main types of descriptive approaches predominate: (a) language sampling procedures, (b) rating scales and protocols, and (c) direct observation (Jitendra, 2000). In this paper, studies employing descriptive approaches are re-grouped and sub-classified according to two areas only: (a) elicited and spontaneous language sampling and (b) observational and rating scales.

*Dynamic Assessment*. The concept of dynamic assessment was initially described by Vygotsky as part of his

model of cognitive development. Vygotsky (1986) proposed that a child's knowledge develops within a "zone of proximal development" (ZPD), as experiences are mediated and shared with more capable partners. In the context of language assessment, dynamic assessment can be defined as "an instructionally-oriented model of assessment that serves the dual purpose of accurately identifying a student's instructional language needs and planning instruction" (Jitendra, Rohena-Diaz, & Nolet, 1998, p.182).

Assessment procedures most frequently used for the dynamic assessment of language include (a) testing-the-limits, (b) graduated-prompting and (c) test-teach-retest. All dynamic assessment approaches "incorporate a learning component into the testing situation and examine the learner's responsiveness to teaching" (Jitendra, Rohena-Diaz, & Nolet, 1998, p.182). Whereas testing-the-limits and graduated-prompting approaches are useful for determining readiness for and progress in intervention, test-teach-retest procedures are better suited for distinguishing language differences from language learning disabilities (Guitierrez-Clellen & Pena, 2001). Test-teach-retest procedures are designed to test children learning potential by providing them with mediated learning experiences (MLE) following initial testing and then retesting at the end of instruction. The idea is that a child with a typical language-learning system (or without a disability) will be able to benefit immediately from instruction, whereas the student with a disability will have difficulty learning even when explicit instruction is provided.

*Curriculum-Based Language Assessment (CBLA)*. Curriculum-based language assessment measures are designed to first identify the areas within the curriculum where language-related problems are most likely to occur and then to assess language performance using the context and content of the curriculum. Contrary to popular notions, the term "curriculum" is not limited to the design of specific academic courses. Nelson (1994) broadly defined curriculum as "the variety of things children are expected to learn in school to become successful, independent citizens" (p.105). Nelson's description of the six kinds of curricula most often observed in schools includes both explicit academic-related types of curricula and the more implicit, subtle types related to social expectation and communicative interaction. These are (a) the official curriculum defined by school districts; (b) the cultural curriculum dictated by the unspoken expectations of the mainstream culture; (c) the de facto curriculum governed by textbook selection in individual schools/classrooms; (d) the school culture curriculum determined by both the stated and the unstated rules that determine acceptable classroom behavior; (e) the hidden curriculum controlled by teachers' conscious or unconscious values for desirable or undesirable classroom behavior; and (f) the underground curriculum dictated by peer-determined rules about acceptable and unacceptable age-appropriate social behaviors.

Curriculum-based *language* assessment (CBLA) is distinctly different from more generalized curriculum-based assessment or curriculum-based measurement that seeks to determine the student's instructional needs through an analysis of the local curriculum. In contrast, CBLA looks at the types of language skills and strategies the student uses during all school-related communication breakdowns, assesses their effectiveness, and then determines the types of curricular and student adaptations that may be necessary to communicative success (Nelson, 1994; Schoenbrodt, Kumin, & Sloan, 1997). Baca & Valenzuela (1994) go so far as to posit that CBLA, which employs "criterion-referenced, informal and teacher-made devices" should be "the first step" (p. 5) in the assessment process of bilingual children with disabilities. This information, they believe, is crucial to the appropriate instructional placement of the student.

## Results

### *Language Sampling*

Nine of the documents reviewed utilized or recommended language sampling procedures as valid alternatives to traditional testing for bilingual children. Seven of these studies were experimental documents describing research conducted with Spanish-speaking subjects, whereas two of the studies were opinion-based. Studies also varied in terms of method of elicitation (spontaneous versus elicited) and sample type (conversational versus narrative).

Two of the nine experimental studies sampled the narrative or story-telling abilities of their subjects. Goldstein et al. (1993) employed a standardized story retell task with four-scene cue cards to elicit the students' narratives, and Guittierrez-Clellen (1994) analyzed syntactic complexity in spontaneous narratives.

The other experimenter with the exception of Bedore & Leonard (2001) who used structured elicitation tasks, utilized spontaneous, conversational samples in their assessment protocols. Many of the studies, however, focused on analyzing only one aspect of subjects' linguistic competence, generally syntactic/grammatical structures.

These structures included article use, article + noun agreement, morphosyntactic structures, and grammatical morphemes. Although “language samples and story telling procedures can be used effectively to establish a relative language proficiency profile” (Barrera, 1995, p.8), the majority of the language samples were obtained in English or Spanish, not both and thus were not capable of providing information on subjects’ relative language proficiency or language dominance. Only one study (Langdon, 1999) reported assessing subjects in naturalistic contexts with a variety of conversationalists in both English and Spanish. Therefore, this study (Langdon, 1999) was the only document that conformed to all six measures of effective alternative assessment that this paper specified. Table 1 shows the degree to which the language sampling methods met the 6 effectiveness criteria.

*Observational/Rating Scales.* In the category of observational/rating scales, seven studies were reviewed for evidence of effective assessment using the five pre-determined criteria. All of the studies utilized parental reports or interviews to obtain their data. Three of them (Gonzalez, 1994; Jackson-Maldonado, 1999; Restrepo, 1998) coupled parent reports with teacher observation and rating scales. Five of the studies (74%) reported obtaining information on students’ English and Spanish competence, language dominance and language proficiency.

Six (85%) reported that information obtained spanned a variety of communication contexts and a number of linguistic modes. All of the researchers found that parental reports provided valid data for differentiating between a language disability and linguistic differences attributable to second language learning. The one obvious weakness with this method was in the area of intervention or curricular relevance. None of the studies addressed the issue of how the information obtained via this procedure could generalize to the classroom/intervention setting. Table 2 summarizes the results of this evaluation.

*Dynamic Assessment.* Three of the six (50%) documents reviewed (Butler, 1997; Jitendra & Rohena-Diaz, 1996; Jitendra, Rohena-Diaz & Nolet, 1998) were opinion-based, literature review-type articles and focused on the strengths and advantages of dynamic assessment (DA) over more traditional standardized testing. Both of Jitendra’s articles employed hypothetical case studies as a means of illustrating the ideal dynamic assessment process. In both articles, subjects for the case study were 8 to 10-year old males of Puerto Rican descent for whom Spanish was considered the home language. These studies demonstrated the ability of DA to differentiate effectively between language disability and linguistic differences. Although Butler’s tutorial did not employ the case study approach, she also discussed the benefits of employing DA methods for testing children who are culturally and linguistically diverse.

The other three articles were descriptions of experimental studies in which the validity of DA as an alternative assessment measure was explored. All of these studies were done by Pena and colleagues and focused on using DA as a supplemental assessment measure for bilingual children of Hispanic descent. The majority of the subjects in all the studies were preschool-aged children, and all were enrolled in bilingual Head Start programs. The three experimental studies employed standardized tests for the pre-test portion of the assessment protocol, and all six documents utilized or supported a test-teach-test design that included a mediated learning experience (MLE), during which children were exposed to tasks that were similar (but not identical) to tasks presented during the pretest. Because most of the subjects were bilingual, responses were accepted in both English and Spanish.

An analysis of the six documents reviewed, indicated that DA complied with all of the six criteria for effective assessment as stipulated in this paper. All the studies reviewed (a) focused on Spanish-speaking children at risk for learning disorders, (b) assessed more than one area of language, (c) were designed to address issues of language dominance and proficiency, (d) provided relevant intervention information and proved capable of distinguishing a language-learning disability from a language difference. Table 3 provides a summary of the effectiveness ratings of this method.

*Curriculum-Based Language Assessment.* The application of CBLA approaches to the language assessment of bilingual students has not received extensive coverage in the literature. Only five candidate documents met criteria for inclusion in this review. In four out of the five documents (80%), students were assessed in specific language-related curricular areas. These included (a) reading comprehension and fluency (Baker & Good, 1994), (b) language arts activities based on story passages (Duran & Szymanski, 1994), (c) Head Start curricular-based vocabulary (Steffani, 1992), and (d) storybook writing (Ruiz, 1995). The subjects of all four studies were Spanish-English bilingual students, and assessments were carried out in both languages by bilingual personnel. The fifth document (Cline, 1998), was opinion based and focused on the importance of not only assessing the child in his/her

learning environment but on assessing the learning environment itself.

The fourth document (Ruiz, 1995) was somewhat singular in its approach and utilized a classroom-based observation as a means of determining the validity of the theory that the performance of children in special education is affected by their interactional/instructional contexts. The Ruiz (1995) study, along with the documents discussed previously, all (100%) utilized materials that were directly linked to the students' academic context and thus met the criteria for instructional relevance. However, only two documents (Cline, 1998; Ruiz, 1995) dealt with or discussed children with disabilities. Table 4 summarizes the results of the analysis.

#### Discussion

In this review of the literature, three types of alternative assessment measures—descriptive, dynamic, and curriculum-based—were analyzed in terms of their effectiveness in providing non-biased assessment information for at-risk bilingual Hispanic students. Each document was first classified according to either a descriptive, dynamic or curriculum-based approach and then evaluated on the basis of five specific criteria gleaned from the literature on bilingual assessment. Although documents were individually assessed, the focus of this paper was not so much on whether specific procedures met criteria but whether the approaches were capable of effectively assessing bilingual Hispanic students.

Interestingly, findings indicate that regardless of approach, only 20% of the individual documents met *all* the assessment effectiveness criteria specified in this paper. Eighty percent of these “one hundred percent criteria” articles were classified in either the dynamic approach group or the curriculum-based language assessment group. However, dynamic assessment approaches were found to more fully comply with the criteria for effective assessment than curriculum-based language assessment approaches. Descriptive measures, whether employing language sampling procedures or observation/rating scales, were found to be the least capable of conforming to the efficacy criteria as outlined in this paper.

This analysis also served to highlight the strengths and weaknesses of each approach. For example, whereas 100% of the documents in the DA and CBLA classifications met the instructional and placement information (IPI) criterion, none of the documents in the descriptive classification of language sampling or observational/rating scales met this criterion. However, descriptive measures do have the capacity to obtain spontaneous information regarding language proficiency and dominance in ways that DA approaches cannot. Documents in the category of observational rating scales also more consistently provided comprehensive language data (i.e. information from a variety of contexts and language components) than did both DA and CBLA approaches. The findings on each approach's relative strengths and weaknesses may suggest that an approach's failure to conform to all of the predetermined criteria for effective assessment may not necessarily disqualify it as a useful assessment measure.

The results provide strong evidence of variation among alternative assessment approaches. That is, not all are equally effective in their ability to assess bilingual Hispanic students. Furthermore, their effectiveness may be affected by the choices in administration procedures selected by the examiner. For example, although language sampling is clearly an alternative measure capable of being administered in the student's first and second languages, less than 50% of the documents reviewed, assessed or recommended assessment in both languages. Further, data from this study also suggest that measures that purport to provide instructional and placement information may not comply with all the basic criteria that the literature recommends. This finding may suggest that a combination of alternative and traditional approaches, rather than any single approach, may be most effective in assessing the language of bilingual students.

This study also exposed several inadequacies in this area of research. First, it highlighted the need for more data-based research on alternative assessment of bilingual Hispanic children. This was demonstrated by the meager 26 documents that met criteria for this evaluation, despite the fact that the search spanned a 10-year period, and only 80 % of these were data-based. Secondly, even those that were data-based involved small numbers of subjects who were of a limited age span (usually preschool). Thirdly, most of the existing research literature was authored by a limited number of researchers whose names recurred multiple times in the studies analyzed. The apparent lack of research documenting alternative assessment efficacy may suggest the absence of widespread usage. Given the increasing numbers of bilingual children being placed in special education programs and the documented inability of standardized language measures to adequately assess bilingual children, the fair and appropriate placement of

linguistically diverse students may be legitimately challenged (Gersten & Woodward, 1994).

Other limitations inherent in this type of research include (a) the difficulty of ascertaining that all the relevant documents have been identified and reviewed, (b) the fact that this review was limited to documents dealing with language assessment only, to the exclusion of psychological and educational assessment, and (c) the reality that this research was conducted in an area where the lack of scientific evidence requires the researcher to draw subjective and inferential conclusions regarding assessment effectiveness.

These limitations, however, may be useful in determining new pathways for future research. More experimental research is definitely needed with culturally and linguistically diverse students. Specifically, there is need for data on specific strategies for effectively assessing children from Hispanic backgrounds—the nation’s largest minority group. Presently, there is little research providing follow-up information on the academic success of students who have been tested by alternative methods. The crisis of minority over-representation in special education, may actually stem not so much from a dearth of assessment approaches but from an absence of rigorous scientific grounding that validates assessment decisions. Perhaps it is time to test the tests—and thus guarantee appropriate education to *all* the nation’s children.

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**Table 1***Effectiveness Rating for Language Sampling*

Study	L1 & L2	CLA	LDA	LPA	IPI
Bedore & Leonard (2001)	–	–	–	+	–
Eng & O'Connor (2000)	–	–	–	+	–
Goldstein et al. (2001)	–	+	–	+	–
Gutierrez-Clellen (2000)	+	–	+	–	+
Jackson-Maldonado (1990)	–	+	–	–	+
Langdon (1999)	+	+	+	+	+
Restrepo & Kruth (2000)	+	–	+	+	–
Restrepo & Gutierrez-Clellen (2001)	–	–	–	+	–
Restrepo & Silverman (2001)	+	–	+	+	–

Note. L1 = 1st Language; L2 = 2nd Language; CLA = Comprehensive Language Assessment; LDA = Language Dominance Assessment; LPA = Language Proficiency Assessment; IPI = Intervention & Placement Information.

**Table 2***Effectiveness Rating for Observational/Rating Scales*

Study	L1 & L2	CLA	LDA	LPA	IPI
Gonzalez (1994)	+	+	+	+	–
Gonzalez et al. (1996)	+	+	+	+	–
Jackson-Maldonado (1990)	–	+	–	–	–
Patterson (2000)	+	–	+	+	–
Restrepo (1998)	+	+	+	+	–
Thal et al. (2000)	–	+	–	–	–

Note. L1 = 1st Language; L2 = 2nd Language; CLA = Comprehensive Language Assessment; LDA = Language Dominance Assessment; LPA = Language Proficiency Assessment; IPI = Intervention & Placement Information.

**Table 3***Effectiveness Rating for Dynamic Assessment*

Study	L1 & L2	CLA	LDA	LPA	IPI
Gutierrez-Clellen (2001)	+	+	+	+	+
Jitendra & (Rohena-Diaz 1996)	–	+	–	+	+
Jitendra et al. (1998)	+	+	+	+	+
Lidz & Pena (1996)	–	+	–	+	+
Pena & Quinn (1992)	+	–	+	+	+
Pena et al. (2001)	+	–	+	+	+

Note. L1 = 1st Language; L2 = 2nd Language; CLA = Comprehensive Language Assessment; LDA = Language Dominance

Assessment; LPA= Language Proficiency Assessment; IPI=Intervention & Placement Information.

Table 4

*Effectiveness Rating for Curriculum-Based Language Assessment*

Studies	L1 & L2	CLA	LDA	LPA	IPI
Baker & Good (1994)	–	–	–	–	+
Cline (1998)	+	+	–	+	+
Duran & Szymanski (2000)	+	+	+	+	+
Ruiz (1995)	+	+	–	–	+
Steffani (2000)	+	–	+	+	+

Note. L1 = 1st Language; L2 = 2nd Language; CLA = Comprehensive Language Assessment; LDA= Language Dominance Assessment; LPA= Language Proficiency Assessment; IPI=Intervention & Placement Information