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Using Language Sampling in Clinical Assessments with Bilingual Children: Challenges and Future Directions

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Abstract

Current language tests designed to assess Spanish-English-speaking children have limited clinical accuracy and do not provide sufficient information to plan language intervention. In contrast, spontaneous language samples obtained in the two languages can help identify language impairment with higher accuracy. In this article, we describe several diagnostic indicators that can be used in language assessments based on spontaneous language samples. First, based on previous research with monolingual and bilingual English speakers, we show that a verb morphology composite measure in combination with a measure of mean length of utterance (MLU) can provide valuable diagnostic information for English development in bilingual children. Dialectal considerations are discussed. Second, we discuss the available research with bilingual Spanish speakers and show a series of procedures to be used for the analysis of Spanish samples: (a) limited MLU and proportional use of ungrammatical utterances; (b) limited grammatical accuracy on articles, verbs, and clitic pronouns; and (c) limited MLU, omission of theme arguments, and limited use of ditransitive verbs. Third, we illustrate the analysis of verb argument structure using a rubric as an assessment tool. Estimated scores on morphological and syntactic measures are expected to increase the sensitivity of clinical assessments with young bilingual children. Further research using other measures of language will be needed for older school-age children.

Keywords

Bilingual language sample analysis; language disorders; assessment rubic

For many years, researchers and clinicians have raised concerns about the validity of current language tests for the identification of specific language impairment (SLI) in culturally and linguistically diverse children, in particular Latino children. Latino children may speak Spanish and English with different degrees of proficiency, depending on their exposure to the languages and their opportunity to learn and develop the two languages. For example, initially as children learn English as a second language they may show use of “Spanish-influenced” ungrammatical forms. These potential differences would be penalized as errors by most available tests. Current language tests do not provide sufficient information about the performance of bilingual speakers that can help differentiate typical bilingual learners from children with SLI. Commonly used English language tests, such as the Test of Language Development,[1] the Test of Language Development-Intermediate 3rd Edition,[2] the Clinical Evaluation of Language Fundamentals- Preschool,[3] the Clinical Evaluation of

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Language Fundamentals 4th Edition,[4] and the Preschool Language Scale-4,[5] include Latino children but do not provide separate norms for bilingual speakers compared with monolinguals. These tests may not be useful for the diagnosis of language disorders in bilingual children. A study of the Structured Photographic Expressive Language Test: Third Edition,[6] a test that targets morphosyntactic structures by comparing Latino children exposed to a language other than English at home with monolingual children, found a moderate effect size based on the child's background.[7] The bilingual children had lower scores compared with the monolinguals. In addition, early research with the Structured Expressive Language Test-Preschool[8] found that this test may not be useful in eliciting grammatical targets reliably with Latino English speakers.[9]

Examiners may also find significant differences across bilingual children when language performance is evaluated using Spanish tests. For example, Restrepo and Silverman (2001)[10] reported that bilingual Spanish-English children scored below 1 standard deviation below the mean for both receptive and expressive scores on the Spanish Preschool Language Scale.[11] Other tests designed to assess Spanish skills are also problematic. The proportion of children with language impairment—classified as impaired (i.e., sensitivity) by the Spanish Structured Photographic Expressive Language Test[12]—is low. Only 65% of Spanish-speaking children with language impairment were correctly identified by this measure.[13] Plante and Vance (1994)[14] suggested that, for a diagnostic measure to be fair, its sensitivity and specificity should be at or more than 80%.

Current Spanish tests may include language forms that are not sufficiently challenging for these children and exclude language forms that may be clinically useful. For example, the Spanish Clinical Evaluation of Language Functions (Semel et al, 1997)[15] tests for possessive pronouns and present third person singular, a form that may not be difficult for a Spanish speaker with SLI. This may help explain why only ~65% of the children with language disorders are classified correctly using this measure. The Spanish Preschool Language Scale, 4th Edition tests for prepositions, an area that may not pose difficulty to affected children. In turn, the Spanish Structured Photographic Expressive Language Test-Preschool does not include critical targets such as articles and clitic pronouns.

The use of language samples in assessments with bilingual children can help make clinical decisions and provide direction to the planning of language interventions.[16] However, in a recent survey of the practices of school-based speech-language pathologists in assessments of bilingual children,[17] only 33% of respondents reported use of language samples. The majority of clinicians used a variety of standardized tests. Fifteen of the 17 language tests reported were normed on English monolinguals, and the remaining two tests were normed on Spanish monolinguals. As was discussed earlier, tests based on the performance of English monolinguals are likely to underestimate the language abilities of bilingual children, whereas the Spanish versions of English tests may overestimate the language abilities of Spanish-speaking children with language disorders. In addition, the majority of the respondents (75%) selected English as the language of assessment most frequently used with bilingual children. Based on these results, it would not be surprising to find either under- or over-representation of English-language learners in the caseloads of school clinicians. In the next sections, we present a framework for the clinical assessment of spontaneous language samples in bilingual children that can be used by bilingual clinicians or adapted for the training of bilingual paraprofessionals when no bilingual clinicians are available.

WHICH LANGUAGE TO ASSESS?

The first question challenging clinicians is how to select a language for the elicitation of language samples in clinical assessments. Current language proficiency tests may not be

useful because they may overestimate a child's English proficiency. For example, the vocabulary subtests of the Woodcock Language Proficiency Battery-Revised[18] and the Woodcock Language Proficiency Battery-Revised: Spanish Form[19] evaluate the same items in English (e.g., fork, horse, scissors, spoon, carrot) and Spanish (e.g., tenedor, caballo, tijeras, cuchara, zanahoria). Many of these words are learned as children are exposed to books and literacy activities. However, direct comparisons to establish relative proficiency in the languages using this measure cannot be made because children may only know items in one language, and this language may not be their most proficient language. In Latino children in the United States, it is common to note that vocabulary learning is contextualized, with "academic" words learned in English when children first start school, and "nonacademic" words learned in Spanish at home. If children are not exposed to literacy activities in the home language, their vocabulary scores in Spanish will be lower than their vocabulary scores in English on these measures. Higher scores in English vocabulary may lead to the erroneous conclusion that the child is more proficient in English and can be tested only in English.

Children may be misdiagnosed, even if they are able to produce sentences in English. A study with typically developing school-age children from several language backgrounds who had learned English for ~9 months showed that they produced English grammatical morphemes with similar errors as age-matched monolingual English speakers with language impairments.[20] Our previous research with Latino children indicated that Spanish-dominant children may exhibit lower grammatical accuracy in English than their English-dominant or English-only Latino peers.[21] In contrast, when we compared the grammatical accuracy of English-dominant with that of English-only speakers based on spontaneous language samples, we found no significant differences between the two groups.[21] Language dominance varies over time and may differ depending on the language domains tested. Children may appear dominant in one language for aspects of the lexicon and dominant in the other or "balanced" for grammatical tasks. Thus, to determine the child's "best" language for a particular language domain, it is critical that assessments evaluate skills in both languages. In the next sections, we focus on the use of grammatical measures of spontaneous language samples and the extent to which the procedure can help in clinical assessments when both languages are assessed. First, we briefly discuss the evidence for the clinical use of spontaneous language samples for diagnostic purposes. Then, we describe several measures to be used for the analysis of spontaneous language samples based on our previous research with Spanish-English-speaking children.

IS LANGUAGE SAMPLE ANALYSIS A GOOD DIAGNOSTIC INDIGATOR?

Research with English-speaking monolingual children indicates that the diagnostic classification provided by measures of spontaneous language samples may be more accurate than the classification obtained by the use of standardized tests.[22] For English, a composite score based on the correct use of regular past-tense "-ed" inflections, regular third person singular present "-s" inflections, and copula and auxiliary "be" forms have good sensitivity and specificity. English verb grammatical accuracy and mean length of utterance (MLU) accurately identified 95% of the affected children and 100% of the unaffected group.[23]

Research examining the classification accuracy of spontaneous language samples with Spanish-speaking children indicates that the procedure has fair to good sensitivity and specificity. The number of errors per sentence based on spontaneous language samples (elicited in conversation or storytelling), together with evidence of parent concern, was able to accurately identify 91.3% of children with language impairments in an exploratory study and 87.5% of children with language impairments in a confirmatory study.[13]

A more recent study with Spanish speakers found that children with language impairments could be adequately identified by examining the proportion of correct clitic pronouns (e.g., *El niño* ***le*** *dio su rana a ella* [The boy gave his frog to her]), verbs (e.g., *Quiere que se* ***vaya*** *el gato* [She/he wants the cat to go away]), and articles (e.g., ***El*** *señor agarra* ***una*** *taza* [The man grabs a cup]) in their spontaneous narrative samples.[24] However, the model did not help diagnose some children who had limited MLU measured by the number of words per utterance. These children were only correctly identified when the assessment included an analysis of their use of ditransitive verbs. These are verbs that require three arguments: a subject, a direct object, and an indirect object (e.g., bring and give). In addition, the children tended to show difficulty with their use of themes (i.e., marking direct objects as in "the boy grabbed an apple"). Studies with English and Spanish speakers reported that children with SLI may show argument omissions, in particular when they attempt to produce sentences with complex argument structure.[25-29] These studies suggest that an analysis of the child's use of verb arguments can help identify a language disorder in each of the two languages. In summary, the available research shows significant evidence supporting the use of language-specific measures that can be obtained in spontaneous language samples and that can be used with good clinical differentiation.

LANGUAGE SAMPLE ANALYSIS PROCEDURES

To elicit spontaneous language samples, clinicians may collect narratives based on the frog stories, *Frog, Where Are You?, Frog on His Own, Frog Goes ti Dinner*, and *One Frog Too Many*.[30-33] Several studies with Latino children have elicited narratives using these stories even at a very young age. Based on our research, we use *Frog Goes to Dinner* and *Frog on His Own* to elicit Spanish narratives and *Frog, Where Are You?* and *One Frog Too Many* for English. These narrative samples are then transcribed using Systematic Analysis of Language Transcripts (SALT) software, English & Spanish version.[34] The program provides specific instructions that can be used by a trained bilingual speech aide or a bilingual clinician to collect, transcribe, and analyze children's narrative samples in the two languages. In addition, by using this program clinicians have access to a database consisting of English and Spanish retells of *Frog, Where Are You?* from more than 2000 native Spanish-speaking children who are English-language learners (ELLs) sampled from public schools in urban Texas, borderland Texas, and urban California. For many children, age, grade, sex, and maternal education are available for comparison purposes.

Children's narratives are then analyzed by examining the child's MLU (MLU in morphemes for English and in words for Spanish), as well as the overall grammaticality of the sample measured by the percentage of grammatical utterances. In addition, a measure of morphosyntactic accuracy is obtained by calculating the percentage of correct finite verb morphology for English and the percentage of correct production of verbs, articles, and clitic pronouns for Spanish. Finally, a measure of the child's ability to produce complex verb argument structures is determined based on the percentage of correct production of theme arguments and ditransitive verb production in each language. In the sections below, we describe recent research using these measures and provide specific examples for applying these measures to the analysis of narrative samples.

Spontaneous Language Markers in English

To assess morphological skills in English most efficiently, we use a composite finite verb morphology score based on percent correct production regular past "-ed"; present third person singular "-s"; both the copula and auxiliary forms of "is," "are," and "am"; and the auxiliary "do."[21,35] Although English-speaking children with SLI may show difficulty with other grammatical forms, evidence suggests that a focus on English verb morphology can differentiate children with a high degree of accuracy. Before and Leonard[23] found that a

composite based on percent correct production of regular past "-ed," present third person singular "-s," copula "be," and auxiliary forms of "be," but excluding auxiliary "do," also assisted in the identification of English-speaking children with SLI, ages 3;7 to 6 years. Children with SLI had a mean of 47% correct on the verb morphology composite, whereas their age peers had a mean of 97.5% correct. In addition, since Bedore and Leonard[23] found that MLU helped increase diagnostic accuracy of English speakers with SLI, the MLU in morphemes needs to be considered as well. The MLU of the impaired group averaged 3.5, and the typical group's mean MLU was 5.00. Combining the verb composite accuracy score and MLU, ~95% of the affected children and between 95 and 100% of the unaffected children were accurately identified.[23]

Table 1 lists the verb forms to be evaluated and the formula to calculate the verb morphology composite score. Monolingual English-speaking children with SLI between 4 and 6 years old tend to score lower than 60% correct on the verb morphology composite compared with their same-age peers who are found to score higher than 80%. When a cut score was set at 80% correct, the measure showed 97% sensitivity and 98% specificity.[36]

In our research using the same verb morphology composite, Latino children with language impairment whose first language was English had a mean of 44% correct verb morphology, whereas the bilingual children with language impairment had a mean of 57%. Using a cutoff score of 80% correct, we found that 91% of the bilingual children with language impairment were correctly identified. Ninety-three percent of the typical children whose first language was English reached the 80% mastery level. However, only 75% of the bilingual children with typical language development reached the 80% mastery level. These children were English-dominant based on parent and teacher interviews, but their English appeared to reflect features of nonstandard English as typically reported for some speech communities.[37,38] Grammatical structures of the sometimes called "Hispanic English," such as nonobligatory use of regular past tense -ed (e.g., I talk to her yesterday), nonobligatory use of third person singular -s (e.g., She eat too much), and lack of inversion and auxiliary verbs in questions (e.g., She like it?), may affect the verb composite results of bilingual Latino children.[38-41] The presence of nonstandard English features can be established by examining the characteristics of the child's language environment (i.e., English dialect use by the family, peers, and others). Evidence of dialect use together with no speech-language concerns reported by parents or teachers would help rule out language impairment in these children.

Our results also showed that children who are Spanish-dominant with typical language development (and limited English proficiency) had an average of 62% correct finite verb morphology. For this group, only 19% of the children reached the 80% mastery level.[21] These children were still learning English as a second language, and when their Spanish narrative samples were evaluated the analysis showed high morphological skills in that language. Thus, it is critical that clinicians obtain samples in the two languages to make appropriate diagnostic decisions. A child with language impairment should demonstrate limited performance in both languages, not only in English.

Spontaneous Language Markers in Spanish

To examine a child's grammatical skills in Spanish, the narrative samples can be analyzed in two ways. The first analysis focuses on obtaining the MLU in words (MLU-w) and the percentage of ungrammatical utterances in the sample. The MLU-w is automatically calculated by the SALT program. The percentage of ungrammatical utterances (e.g., the number of utterances marked with grammatical errors divided by the total number of utterances, multiplied by 100) is also automatically calculated by SALT. This percentage can be then subtracted from 100 to obtain the percentage of ungrammatical utterances from

the sample. Based on our research with Spanish speakers, a narrative sample with an MLU-w between 2.5 and 4.5 words per utterance and more than 25% ungrammatical utterances is likely to belong to a child with language impairments. Table 2 describes the combinations of MLU-w and percentage of ungrammatical utterances that can help rule in language impairment.

The second analysis focuses on the child's ability to mark those grammatical structures that are specifically challenging to Spanish-speaking children with SLI (i.e., clitic pronouns, verbs, and articles). Table 3 lists the measures and provides examples of grammatical errors. Based on the analysis of these forms, the ratio of correct use in obligatory contexts for each type of morphological marker is calculated. In a recent study, we entered these ratios in a discriminant function equation that consisted of the sum of the products of the coefficients multiplied by the value of the ratio of correct use of each marker, plus a constant.[24] This equation was used to estimate the percentage of accuracy that is expected for a Spanish-speaking preschooler with language impairment. If a narrative sample has less than 90% correct in the use of each of these grammatical structures (i.e., verbs, articles, clitic pronouns), it is likely that the child presents with a language impairment. The high level of accuracy expected in Spanish is consistent with previous research. Spanish-speaking preschoolers with language impairment exhibit a high level of grammatical accuracy in their spontaneous language.[24,27,42]

If children demonstrate use of short and simple sentences, the analysis based on articles, clitic pronouns, and verbs may underestimate a child's grammatical difficulties. In these cases, other measures involving MLU in words, correct use of theme arguments, and use of ditransitive verbs may be necessary to help identify the disorder (Table 4). If a child produces a sample characterized by a small MLU in words (less than four), omits direct objects, and has fewer than 15% ditransitive sentences, the child is likely to have language impairment. Table 5 provides a combination of scores using the three measures that can help differentiate children with and without language impairment.

For children who provide narrative samples in each language, performance on these measures are compared as follows. If the child scores lower than 80% for the English verb morphology composite and higher than target scores for the targeted Spanish measures (Tables 2-5), the clinician may conclude that the child's English grammatical difficulties are related to limited English language proficiency, not a disorder. If the child scores lower than the target scores of each language, the child is likely to have language impairment.

This protocol represents a language-specific approach to the language assessment of a bilingual child by focusing on those grammatical features found to be particularly difficult to children with language impairment in each language. The spontaneous language markers recommended for each language should help clinicians make appropriate diagnostic decisions for many children. However, as discussed earlier, some children may show differences that may not be related to language impairment. Children may be learning nonstandard language varieties, and some may demonstrate Spanish performance differences related to their use and exposure to their home language. Thus, further assessment of their language skills will be necessary. In the following sections, we present a rubric designed to complement the assessment by examining the child's use of ditransitive predicates for specific language contexts elicited by the frog stories in each language. Within this model, morphological errors are not penalized. In addition, the ditransitive contexts elicited by the frog stories are assumed to pose the same difficulty in the two languages.

A RUBRIC FOR ASSESSING VERB ARGUMENT STRUCTURE

To assess verb argument structure, we obtain a total argument structure (TAS) score based on the *Frog* storybook plates that elicit three-argument verbs.[43] Tables 6 and 7 present the rubric in each language. The maximum points per target is 4 (1 point for the verb and 1 point for each argument: subject, direct object, indirect object). The subject in English is obligatory. In Spanish, the subject may not be stated, but it is marked in the verb inflections of person and number. Although one may predict that in English children may omit subjects because Spanish allows for subject ellipsis, our previous studies did not find significant differences in the use of English subjects by Latino second-language learners.[21] Children appear to learn very early that English sentences require a subject.

It is important to note that the rubric uses a differentiated scoring system for counting verb arguments in each of the two languages as well. For Spanish, the subject (or the person and number inflections in the verb), the direct object, and the indirect object each receive 1 point. In Spanish, the location of objects such as in contexts that have verbs like “puso” (put), “llevar” (take), or “traer” (bring) may be optional; therefore, Spanish location is not computed using the rubric. In contrast, for English, these ditransitive contexts require location (e.g., She put the glass on the table);[44] therefore, the rubric credits English location with 1 point (Table 7). The location score only indicates whether the location was marked. English learners may provide limited information about movement in space because of typological differences between the two languages,[45] not language difficulties. Therefore, omission of verb particles and other markers of direction of movement or trajectory in space are not penalized by the analysis.

A study comparing the performance of Latino English-dominant speakers with typical language development, English-dominant children with language impairment, and children learning English as a second language found that the rubric differentiated Latino children with language impairment from their typical peers.[46] In this study, there were no significant differences between the children learning English as a second language and their English-dominant peers. These results provide preliminary support for the use of the rubric to help identify language impairments in bilingual speakers.

Once the TASs in each language are obtained, the child’s performance in each language can be compared with the scores we found in children with language impairments in each language.[43] Based on our previous research, we would predict that a child with language impairment would receive a TAS lower than 20 in Spanish and lower than 10 in English.[43] These preliminary criteria scores, together with the morphosyntactic measures described earlier, will provide additional evidence to help clinicians make diagnostic decisions.

CONCLUSION

This article outlines specific guidelines to help clinicians identify language impairments in Spanish-English-speaking children based on several morphosyntactic indicators found to be important in each language. The use of cutoff scores based on research with bilingual speakers provides strong support for the use of spontaneous narrative samples in language assessments. The spontaneous language markers described in this article should be not be used in isolation, however. Clinicians should have additional evidence of speech or language concern based on parent and teacher interviews and direct observation of the child’s communication in interactions with peers in other social contexts. Information about the child’s use and proficiency in the two languages at home and at school will also be needed to interpret results and to establish the need for further assessment. This will be particularly

important in cases in which the home language is not maintained or when the second language is not being properly mediated in the classroom.

The intent of this article was to demonstrate the application of a spontaneous language sample analysis for the language assessment of bilingual children using several grammatical measures that were either found to be clinically sensitive in previous research studies or that have the potential to clinically differentiate a language difference from a disorder during the preschool years. Although examination of other language measures is beyond the scope of this article, it is important to note that lexical diversity and narrative cohesion can also be investigated using spontaneous language samples. These measures will become increasingly important as children learn to read and should receive primary focus in assessments during the early school years.

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Learning Outcomes

As a result of this activity, the reader will be able to (1) use language samples in assessments with bilingual Spanish-English-speaking children, (2) select and analyze appropriate English and Spanish grammatical features in assessments with bilingual children, and (3) analyze use of verbs and arguments using a rubic as an assessment tool for bilingual children.

Table 1

Verb Morphology Measures in English

Morphosyntactic markers:

- Regular past "-ed" auxiliary forms of "be"
- Present third person singular
- "-s" auxiliary "do"
- Copula "be"

Verb morphology composite score:

- % Correct = correct number of "-ed" + "-s" + copula "be" + auxiliary "be" + auxiliary "do" × 100
- Obligatory contexts for "-ed" + "-s" + copula "be" + auxiliary "be" + auxiliary "do"

Table 2

Combination of Mean Length of Utterance in Words and Percentage of Ungrammatical Utterances in Spanish*

MLU-w	Ungrammatical Utterances (%)	Decision
<2.5	>20	Fail
3.5	>25	Fail
4.5	>25	Fail
5.0	>30	Fail
5.5	>30	Fail
6.0	>30	Fail
6.5	>35	Fail
7.0	>35	Fail

* Use of this combination can help rule in language impairment in Spanish.

MLU-w, mean length of utterance in words.

Table 3

Morphological Markers in Spanish

Marker	Examples	English Translations
Article Use		
Gender substitutions	*La gato corrió.	*The (DET fem) cat (masc) ran.
Target	EL gato corrió.	The (DET masc) cat ran.
Number substitutions	*El señores cantaban.	*The (DET sing) men were singing.
Target	LOS señores cantaban.	The (DET pl) men were singing.
Omissions	*Rana brincó.	*Frog jumped.
Target	LA rana brincó.	The frog jumped.
Verb Use		
Number substitutions	*El niño van al parque.	*The child go to the park.
Target	El niño VA al parque.	The child goes to the park.
Person substitutions	*Los señores cantamos.	*The men sing (1st pl).
Target	Los señores CANTAN.	The men sing (3rd pl).
Tense/Mood substitutions	*Quiere que va afuera.	(She/he) wants (him/her) to go outside.
Target	Quiere que VAYA afuera.	
Omissions	*La rana brincando.	*The frog jumping.
Target	La rana ESTÁ brincando.	The frog is jumping.
Clitic Use		
Number substitutions	*El niño las agarró.	*The child grabbed them (sing).
Target	El niño LA agarró.	The child grabbed it.
Gender substitutions	*El niño la agarró.	The child grabbed it (fem).
Target	El niño LO agarró.	The child grabbed it (masc).
Person substitutions	*Te lava su cara.	*She washes her face yourself.
Target	SE lava su cara.	She washes her face (herself).
Case substitutions	*La dijo “Vete.”	*(She/he) said her “Go away.”
Target	LE dijo “Vete.”	(She/he) said to her “Go away.”
Omissions of obligatory clitic	*El niño agarró a ella.	The boy grabbed her.
Target	El niño LA agarró a ella.	The boy (her) grabbed her.
	*El barco hundió.	The boat sank.
	El barco SE hundió.	The boat (itself) sank.

*Theme arguments may be expressed with noun phrases or clitic pronouns.

Fem, feminine; masc, masculine; sing, singular; pl, plural.

Table 4

Other Spontaneous Language Markers in Spanish

Marker	Examples	English Translations
Theme Argument Errors		
Omission with transitive verb	*El niño agarró.	The child grabbed *.
	El niño agarró A LA RANA.	The child grabbed the frog.
Omission with ditransitive verb	*El niño le dijo al señor.	The child said *to the man.
	El niño le dijo ALGO al señor.	The child said something to the man.
Ditransitive Ratio		
Number of verbs that require direct and indirect objects divided by the total number of verbs	La rana le dio un beso al señor.	The frog (him) gave a kiss to the man.
MLU in Words		
Mean length of utterance measured in words		

* Theme arguments may be expressed with noun phrases or clitic pronouns.

Table 5

Combination of Mean Length of Utterance in Words, Percentage of Correct Theme Production, and Percentage of Ditransitive Sentences in Spanish*

MLU in Words	Correct Theme Production (%)	Ditransitive Sentences (%)	Decision
2.5–4.5	<90	<15	Fail
5	<80	<10	Fail
5.5	<80	<8	Fail

* This combination can help rule in language impairment in Spanish.

MLU, mean length of utterance.

Table 6

Rubric for Assessing Spanish Verb Argument Structure

Page #	Target Verb and Contexts (Please circle what the child said, only when target verb is used.)	Write Sum of Verb and Number of Arguments Used
Frog Story 1: *Frog on His Own* - Spanish Retell		
1	El niño se (consigo) **lleva** a los animales (al parque).	
	The boy takes the animals with him (to the park).	
3	La rana **dice** al niño bye/adiós.	
	The frog says “bye” to the boy.	
5	La rana **saca** la lengua a la mariposa.	
	The frog sticks its tongue out to the butterfly.	
6,8	La abeja **pica** la lengua a la rana.	
	The bee stings the frog’s tongue.	
13	El señor **tira/avienta** la taza a la rana.	
	The man throws the cup to the frog.	
13	La señora **dice/grita** “fuera” a la rana.	
	The woman yells “get out” to the frog.	
20	La mamá **da** la leche al bebé.	
	The mother gives milk to the baby.	
21	La mamá **da** la leche a la rana.	
	The mother gives milk to the frog.	
24	La mamá **dice** “sh” al bebé.	
	The mother says “sh” to the baby.	
26	El niño **dice** “vete” al gato.	
	The boy says “go away” to the cat.	
27	El niño se (consigo) **lleva** la rana (a la casa).	
	The boy takes the frog with him (to his home).	
Frog Story 2:*Frog Goes to Dinner*- Spanish Spontaneous Tell		
2	El niño se (a sí mismo) **pone/cambia** la ropa.	
	The boy puts clothes on (himself).	
3	El niño se (consigo) **lleva** la rana.	
	The boy takes the frog with him.	
3	La rana **dice** “bye” al perro.	
	The frog says “bye” to the dog.	
4	El papá **dice** “una mesa, etc.” al guarda/policía.	
	The father says “a table, etc.” to the policeman.	
5	El papá **dice/pide** comida al mesero.	
	The father asks food to the waiter.	
8 or 9	El señor **dice** “hay una rana, etc.” al otro señor.	
	The man says “there is a frog, etc.” to the other man.	
14	El mesero **pone/trae/da/lleva** la comida a la señora.	
	The waiter gives/brings food to the lady.	

Frog Story 1: *Frog on His Own* - Spanish Retell

Page #	Target Verb and Contexts (Please circle what the child said, only when target verb is used.)	Write Sum of Verb and Number of Arguments Used
18	La rana **da** un beso al señor.	
	The frog gives a kiss to the man.	
18	La señora **dice** algo al señor.	
	The woman says something to the man.	
22	El niño **dice** “es mío, no lo tires, etc.” al señor.	
	The boy says “it’s mine, don’t throw it away, etc.” to the man.	
22	La mamá **dice** “sh” al niño.	
	The mother says “sh” to the boy.	
22	El señor se (consigo) **lleva** la rana.	
	The man takes the frog with him.	
22	El señor **da** la rana al niño.	
	The man gives the frog to the boy.	
22	El niño se (consigo) **lleva/quita** la rana.	
	The boy brings the frog with him.	
24	El niño **dice** “es mía” al señor.	
	The boy says “it’s mine” to the man.	
25	El señor **dice** “váyanse” a la familia.	
	The man says “go away” to the family.	
28	El papá **dice** “vete al cuarto” al niño.	
	The father says “go to your room” to the boy.	
28	La niña **saca** la lengua al niño.	
	The girl sticks her tongue out to the boy.	
	TOTAL ARGUMENT STRUCTURE SCORE SUM	

Table 7

Rubric for Assessing English Verb Argument Structure

Page #	Target Verb and Contexts (Please circle what the child said, only when target verb is used.)	Write Sum of Verb and Number of Arguments Used
Frog Story 1: *One Frog Too Many - English Retell*		
4	The boy **shows** the frog to the animals.	
7	The boy **yells/says** “bad frog” to the big frog.	
11 or 13	The boy **says/tells** “you can’t come” to the big frog.	
18	The turtle **tells/says/talks** “the little frog fell down” to the boy.	
20 or 21	The boy **looks** for the little frog somewhere.	
Frog Story 2: *Frog Where Are You?*- English Spontaneous Tell		
2	The frog **gets** its body out the bottle.	
4	The dog **puts** the head in the bottle.	
19	The deer **carries** the boy off the cliff.	
20-22	The deer **drops** the boy off the cliff.	
24	The boy **says** “sh” to the dog.	
28	The frog **gives** the little frog to the boy.	
29	The boy **says** “bye” to the frogs.	
	TOTAL ARGUMENT STRUCTURE SCORE SUM	