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Making a Case for Language Sampling

Assessment and Intervention With (Spanish-English) Second-Language Learners

by Raúl Rojas & Aquiles Iglesias



Despite nationwide efforts to reduce an academic achievement gap among various racial-ethnic groups, the reading gap between Hispanics and whites has not changed significantly—it has measured more than 25 points in each of the last 17 years (National Center for Education Statistics, 2008). The gap is partly attributed to the fact that many Hispanic children were assessed in a language they had not yet mastered: 10% of all fourth-graders were English-language learners (ELLs), and 40% of ELLs were Hispanics. Further, approximately 80% of the Hispanic ELLs were tested without accommodations such as extended time and directions read in both English and the student's native language.

The gap clearly indicates that many second-language learners are not performing at a level expected for academic success in an English-only environment. The lack of apparent academic progress often results in referrals to speech-language pathologists. SLPs are expected to determine if the child's lack of academic progress is due to a language disorder or to low linguistic skills in English (see case studies at the end of the article). What is the SLP to do when confronted with such cases?

Bilingual Language Acquisition

Research shows that although the speech and language development of bilingual children is similar to that of monolingual children, it is not parallel (Genesee & Nicoladis, 2007). For example, past tense in Spanish is acquired earlier than in English because of its phonological salience (Bedore & Peña, 2008). In an effort to assist clinicians, ASHA has developed practice policy documents to inform them of appropriate service delivery to culturally and linguistically diverse populations (ASHA, 2004).

One of the recommended practices is to assess a bilingual child in both languages (i.e., native language and second language) following least-biased assessment principles (Goldstein, 2006). A second recommendation is that materials (formal and informal) and instructions used during assessment and intervention with bilingual learners should be culturally and linguistically appropriate. Given the paucity of assessments specifically developed for bilingual populations, alternative assessment approaches have been recommended.

One alternative assessment approach is the use of language samples. Although in practice these samples are often secondary to the use of norm-based tests,

it is suggested that the samples constitute an integral component of the assessment protocol (Paul, 2006). Using language samples with school-age children presents two major advantages, particularly during elementary school. First, the task is more congruent with the requirements and challenges of schooling such as demonstrating the ability to comprehend and produce narrative structure (e.g., introduction, character development, referencing) in oral and written form. Second, analyses can directly inform the target of any necessary intervention.

Although language samples can be obtained across a variety of genres (e.g., conversational, expository), sampling using fictional storytelling is the most appropriate, given our present research base. Language skills produced during story retelling have been shown to be positively related to bilingual reading achievement (Miller, Heilmann, Nockerts, Iglesias, Fabiano, & Francis, 2006). Narrative language sampling and analyses, however, are not always used in clinical practice because of the lack of standardized protocols, the perceived time requirement for analysis, and limited comparison data (Miller, Rojas, & Nockerts, 2008).

Over the last eight years, significant progress has been made in addressing these concerns, making language sampling a more viable assessment

alternative. Development of a standardized protocol for elicitation and analyses addresses ASHA practice policy documents and current research on first and second language acquisition, and yields reliable data that clinicians can use to determine the presence or absence of a true language disorder. The protocol takes into consideration clinicians' time constraints and most clinicians' lack of fluency in Spanish. It also is compliant with federal and local requirements for alternative assessments.

Narrative Language Sampling

Narrative language samples should be elicited using a procedure similar to that developed by Strong (1998): story retelling using a wordless picture book, such as *Frog, Where Are You?* (Mayer, 1969). During assessment the examiner should sit across from the child to promote child language, minimize pointing, and encourage use of explicit labels of characters, objects, and actions.

While looking at the book with the clinician or a Spanish-speaking interpreter, the examiner reads a pre-scripted narrative of the story in Spanish. Once finished, the examiner gives the child the book and requests that the child retell the story ("*Ahora, cuéntame lo que pasó en este cuento*"). The child should use the pictures in the book as an aid in the retelling. The examiner should provide only back-channel responses ("Aha," "Sf") or restate the child's last utterance.

Approximately a week later, the same procedure should be repeated using the pre-scripted English story. Children should first be tested in their native or most frequently used language (e.g., Spanish) to increase familiarity with the narrative retelling task. The narratives should be digitally recorded and transcribed using the Systematic Analysis of Language Transcripts (SALT; Miller & Iglesias, 2008) transcription format modified to account for Spanish and Spanish-influenced English (Rojas & Iglesias, 2006). If the clinician is not fluent in Spanish, support personnel (e.g., interpreters, assistants who speak the target language) should be used to elicit and transcribe the samples.

Computerized language analysis eases the time requirement and guarantees consistency of transcription and analyses. Brief three- to five-minute language samples, typically averaging 10 or more utterances, are adequate for analysis (Miller et al., 2006).

Work from our research laboratory, in collaboration with the University of Wisconsin-Madison and the University of Houston, has resulted in a set of narrative language sample databases (Bilingual S/E Story Retell Databases) composed of 2,070 U.S. bilingual children (K-3) retelling Mercer Mayer's (1969) wordless picture book *Frog, Where Are You?* in Spanish and English. The Bilingual S/E Story Retell Databases provide a comparison data set for assessment purposes of Spanish-English bilingual children that permits matching by grade, age, gender, and/or sample length in utterances or words. More importantly, the database incorporates best practices by allowing clinicians to compare the oral language skills of bilingual children to the oral language skills of other bilingual (not monolingual) children following the identical protocol.

Although narrative language sampling generates a wide range of measurable oral language skills, three dialect-neutral language measures are recognized indicators of children's oral language development:

- Mean length of utterance in words (MLUw)—a measure of syntactic complexity
- Number of different words (NDW)—a measure of lexical diversity and productivity
- Words per minute (WPM)—a measure of verbal fluency

MLUw maintains cross-language consistency and comparability and is recommended in cross-linguistic and bilingual research (Gutiérrez-Clellen, Restrepo, Bedore, Peña, & Anderson, 2000). NDW (i.e., total number of different uninflected word roots), which estimates the diversity of the participant's vocabulary (Golberg, Paradis, & Crago, 2008), is a developmentally sensitive measure of narrative productivity for Spanish-English bilingual children (Uccelli & Páez, 2007). WPM, suggested

as a measure of language proficiency for second-language learners (Riggenbach, 1991), has been correlated with age and increasing second-language proficiency (Miller & Heilmann, 2004). Given a properly transcribed language sample, the software program automatically calculates MLUw, NDW, and WPM. These three oral language measures are included in the Bilingual S/E Story Retell Databases.

Although your assessment protocol will probably include administration of formal diagnostic tools, least-biased assessment principles need to be incorporated. This incorporation may mean some adaptations or modifications to the standardized protocol, or perhaps the administration of only certain subtests. Bilingual narrative language sampling can enhance any bilingual assessment by providing spontaneous language sample measures that can supplement and clarify diagnostic information obtained by standardized assessments. Diagnostic reports used to report standard scores with a subjective interpretation of spontaneous language largely guided by clinical judgment can now be bolstered by objective, automatically calculated oral language data in each language that are compared to databases on bilingual children.

Bilingual Intervention

A core principle of intervention is to track progress of treatment goals over successive treatment sessions (Roth & Worthington, 2005). Narrative language sampling and analyses can be utilized to profile progress accurately over time for bilingual clients working on expressive language goals.

Oral language measures obtained at baseline can be compared at different points in time to measure progress. Although this article includes only three specific oral language measurement analyses, the software program offers an extended range of analyses (e.g., word production difficulties, lexical inventories, etc.) that can be used to further explore difficulties and specify goals.

Providing appropriate speech-language services to second-language learners is complex. We recommend obtaining language samples following

the established protocol and, ideally, analyzing the data using software programs that yield comparative data. 



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Author Disclosure

Raúl Rojas and Aquiles Iglesias have been integral in the development of Spanish-language transcription and analyses capacity for the *Systematic Analysis of Language Transcripts (SALT)* from 1998 until the present. The continued involvement of both authors in the ongoing development of SALT for bilingual language sampling has been solely directed at advancing research methods and clinical application.

Selected References

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- Strong, C. J. (1998). *The Strong Narrative Assessment Procedure*. Eau Claire, WI: Thinking Publications.

Additional references for this article can be found at *The ASHA Leader Online*. Search on the title of the article.



Web/Telephone Seminar

Raquel Anderson, associate professor in the Department of Speech and Hearing Sciences at Indiana University, hosted a web/telephone seminar, “Assessing Children Who Speak Spanish: Milestones in Spanish

Grammar Development” will be available for continuing education until July 21, 2013. Visit the ASHA online store at www.asha.org/shop and search on “Anderson.”

Case Studies: Evaluations of Two Second-Language Learners

The following two cases involve second-language learners referred for an evaluation because of “difficulty with English that interferes with academic progress.” These two cases will illustrate clinical solutions for assessment and intervention with Spanish-English second-language learners.

Case #1: Elizabeth

Elizabeth is a 7.3-year-old first-grader. Elizabeth’s teacher indicated overall poor classroom and homework performance, with the exception of arithmetic, which appears to be her strength. The teacher mentioned that “Elizabeth is very shy and timid, rarely makes eye contact with me, and speaks in Spanish with other Spanish-speakers in the classroom.” As reported by her father, Elizabeth’s older sibling had problems learning language, expressing ideas, and learning to read and received speech-language intervention services during elementary school. Elizabeth was exposed to approximately 85% Spanish and 15% English up to age 3; her daycare was monolingual English. For the last four years, Elizabeth has been exposed mostly to Spanish in the home. During the school year, she is exposed to approximately 20% Spanish and 80% English. A home-language survey indicated that Elizabeth’s mother and father speak Spanish only. The older sibling speaks English and Spanish with Elizabeth, but only Spanish with the parents. Elizabeth speaks only Spanish to her parents and older sibling. Elizabeth was reported to have normal hearing and cognitive skills.

Case #2: Rosemary

Rosemary is a 7.4-year-old first-grader. Rosemary’s teacher reported that Rosemary performs considerably below expectations in comparison to her peers, and that she demonstrates difficulties even following simple directions. Rosemary’s mother indicated “having a hard time at school when I was little, but I got better.” Rosemary’s mother did not receive special education services for academic difficulties. Aside from the anecdotal information, no family history of academic or speech-language problems was reported. Rosemary was exposed to approximately 90% Spanish and 10% English up to age 5; she did not attend daycare. At school, she is exposed to approximately 70% Spanish and 30% English. According to a home-language survey, Rosemary’s mother and father are monolingual Spanish speakers; the children speak to their parents in Spanish only. Rosemary and both siblings speak in Spanish and English with one another. Rosemary has normal hearing. A bilingual school psychologist is to assess cognitive function by the end of the academic year.

Assessment Strategies and Solutions

Putting recommendations into practice is best exemplified with narrative language sampling and analyses to highlight the dichotomy between a language difference and a language disorder in bilingual (Spanish-English) children. Elizabeth and Rosemary are two native Spanish-speaking students. Rosemary began acquiring English as a

second language; Elizabeth was raised in a bilingual environment. Narrative language samples in Spanish and English were elicited from Elizabeth and Rosemary, transcribed (20 minutes per sample, 40 minutes total per child), and analyzed and compared with the Bilingual S/E Story Retell Databases using age- and grade-matching.

The results of the bilingual language samples and analyses for Elizabeth and Rosemary are outlined in the accompanying table. Based on case history alone, Rosemary is similar to many of the sequential bilingual children encountered daily in clinical practice. Elizabeth and Rosemary both demonstrated difficulties in their spontaneous language in English, which had a negative effect on their academic progress in school. The results of their narrative assessment indicated that their performance in English, even when compared to the English of other age- and grade-matched bilingual children, was low. Without any further evidence, the results would indicate possible language disorders for both children.

Examination of their results in Spanish provides a different picture. Elizabeth's language skills, compared to the performance in Spanish of bilingual children matched by age and grade, are age-appropriate. Although of some concern, her performance in English appears to be associated with second-language acquisition. In contrast, Rosemary's linguistic skills, especially her lexical diversity, are of concern in English and Spanish. Rosemary clearly evidenced delayed oral language skills in both her native language (Spanish) and her second language (English). Elizabeth is, therefore, a strong candidate for English as a second language (ESL) services and the clinician could work collaboratively with the ESL teacher to identify areas in which to focus (ASHA, 1998). Rosemary should be considered for speech-language treatment and ESL services.

Following assessment and enrollment in speech-language services, baseline

measures are obtained to determine Rosemary's initial level of function and ability in the different domains of language. Treatment goals that involve increasing Rosemary's mean length of utterance in words in words or morphemes, expanding the lexicon, demonstrating appropriate verbal fluency to improve communicative effectiveness, and developing overall narrative skills are all well-suited to progress-monitoring via narrative language sampling. If not done as part of a bilingual assessment, obtaining a baseline sample for these language domains can be done within one or two treatment sessions by eliciting a narrative language sample in Spanish and another one in English, and using the bilingual database to compare baseline performance.

Indirect or direct approaches can be implemented over the course of Rosemary's treatment to target her expressive language goals. Treatment

may be provided using either the bilingual approach, which improves speech and language skills shared across both languages, or the cross-linguistic approach, which selects targets for treatment specific to each language. The appropriate approach will be determined by the languages spoken by the client and the clinician (Kohnert & Derr, 2004). These approaches will differ from client to client and from clinician to clinician. Regardless of the approach used, targeting of expressive language goals will involve adaptations of materials and techniques such as sequencing cards, picture vocabulary stimuli, board games, and storybooks.

Although Elizabeth and Rosemary would have appeared delayed based on standardized testing in English, bilingual language sampling clarified that Rosemary exhibited difficulties in both languages, and Elizabeth displayed difficulties only in her second language.

Bilingual narrative language sampling and analyses: Elizabeth and Rosemary

Elizabeth

	Variable	Score	+/- SD	Mean (Bilingual S/E Story Retell Databases)
English	MLUw	4.96*	-1.57	6.43
	NDW	40*	-1.48	76.93
	WPM	33.50*	-1.59	74.35
Spanish	MLUw	6.56	.26	6.33
	NDW	90	.51	79.28
	WPM	86.63	.86	68.59

Current age: 7.3; mean elapsed time: 3 minutes, 15 seconds; comparison set: 73 females, 91 males (English) and 73 females, 90 males (Spanish); age range: 7.0-7.6

**At least 1 standard deviation (SD) from the database mean*

Rosemary

	Variable	Score	+/- SD	Mean (Bilingual S/E Story Retell Databases)
English	MLUw	5.00*	-1.57	6.47
	NDW	14**	-2.51	76.37
	WPM	47.11*	-1.03	74.18
Spanish	MLUw	6.25	-.14	6.36
	NDW	28**	-2.46	79.74
	WPM	47.67*	-1.07	69.02

Current age: 7.4; mean elapsed time: 2 minutes, 57 seconds; comparison set: 73 females, 88 males (English) and 60 females, 81 males (Spanish); age range: 7.1-7.7

**At least 1 standard deviation (SD) from the database mean*

***At least 2 standard deviations (** 2 SD) from the database mean*

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