

Development of a Language Routing Protocol to Determine Bilingual Spanish Speaking Children's Language of Assessment¹

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BACKGROUND

• Many factors influence language proficiency and dominance in bilingual children including:

- The age when children learn each language
- How often (duration and frequency) children use each language in the home and with peers
- Where and how children learn each language

• Determining the most appropriate language for assessing bilingual children can be challenging:

- Tests of language dominance often categorize children into one of two language groups, rather than capturing the continuum of bilingual competencies
- Few tests exist to determine appropriate language for assessment
- Some research protocols rely only on parent or teacher report when determining which language to use when assessing children

• Assessing children in their non-dominant language can result in test scores that do not reflect accurately children's overall development across languages

OBJECTIVE

- Is a multi-step language routing protocol better than using only parent report to determine the appropriate language for assessing bilingual children and allow for appropriate adjustments during the actual assessment?
- Does the new routing protocol accurately capture children's language abilities in a large urban ELL community sample, such as Los Angeles?

SAMPLE

- 1657 children attending a Los Angeles Universal Preschool Program (LAUP) funded by First 5 LA in 98 different centers
- 74% of children were of Hispanic/Latino ethnicity



Champions For Our Children

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⁴ Preschool Language Assessment Survey (Pre-LAS 2000)

⁵ Receptive One-Word-Picture Vocabulary Test: Spanish Bilingual Edition (ROWPVT: SBE)

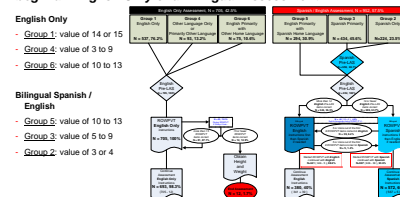
METHOD

• Developed a multi-step language routing protocol

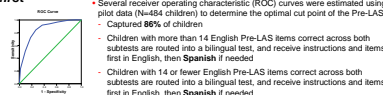
Step 1 Ask parents to report on children's language use in the home and with peers during the consent process

	Only English	Mostly English but Sometimes my primary language	Both languages about equally	Mostly my primary language but some English	Only my primary language
1. What language do you speak most often with your child?	<input type="checkbox"/> 5	<input type="checkbox"/> 4	<input type="checkbox"/> 3	<input type="checkbox"/> 2	<input type="checkbox"/> 1
2. What language does your child speak most often with you?	<input type="checkbox"/> 5	<input type="checkbox"/> 4	<input type="checkbox"/> 3	<input type="checkbox"/> 2	<input type="checkbox"/> 1
3. What language does your child speak most often with other children?	<input type="checkbox"/> 5	<input type="checkbox"/> 4	<input type="checkbox"/> 3	<input type="checkbox"/> 2	<input type="checkbox"/> 1

Step 2 Assign a value (1 to 5) to parent report response categories. Use the total values across the 3 questions along with reported home language use to assign children to 6 language groups and to begin an English Only or a Bilingual Assessment



Step 3 Use child's performance on two subtests of the English Pre-LAS⁴ to determine if children in language groups 2, 3, or 5, should be given the next assessment instructions in English or in Spanish first



Step 4 Use the child's performance on the ROWPVT:SBE⁵, a conceptually scored test, to determine if the child should continue the rest of the assessment in English or in Spanish

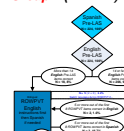
- Several receiver operating characteristic (ROC) curves were estimated using pilot data (N=484 children) to determine the optimal cut point of the Pre-LAS: Captured 86% of children
- Children with more than 14 English Pre-LAS items correct across both subtests are routed into a bilingual test, and receive instructions and items first in English, then Spanish if needed
- Children with 14 or fewer English Pre-LAS items correct across both subtests are routed into a bilingual test, and receive instructions and items first in English, then Spanish if needed

FINDINGS

• Children in language groups 2, 3, 5 were administered the bilingual (Spanish / English) Assessment (N = 952, 57.5%)

Group 2 (N = 224)

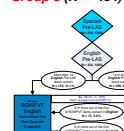
Spanish Only



- 92.0% of children in Group 2 started the assessment in Spanish based on low scores on the English Pre-LAS subtests
- 2.2% 5 children switched during the ROWPVT from Spanish to English (2) or English to Spanish (3)
- 92.4% of the children continued the assessment in Spanish after the ROWPVT

Group 3 (N = 434)

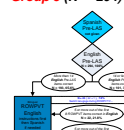
Spanish Primarily



- 68.9% of the children in Group 3 started the assessment in Spanish based on low scores on the English Pre-LAS subtests
- 3.7% 16 children switched during the ROWPVT from Spanish to English (15) or English to Spanish (1)
- 65.7% of the children continued the assessment in Spanish after ROWPVT

Group 5 (N = 294)

English Primarily with Spanish Home Language

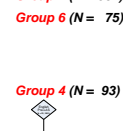


- 65.6% of the children in Group 5 started the assessment in English based on low scores on the English Pre-LAS subtests
- 7.8% 23 children switched during the ROWPVT from Spanish to English (22) or English to Spanish (1)
- 72.8% of the children continued the assessment in English after ROWPVT
- 99.5% of the children who started the ROWPVT in English stayed in English after the ROWPVT
- 78.2% of the children who started the ROWPVT in Spanish stayed in Spanish after the ROWPVT

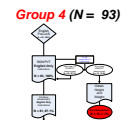
• Children in language groups 1, 4, 6 were administered the English Only assessment (N = 705, 42.5%)

Group 1 (N = 537)

English Only



- 98.3% 693 children in Groups 1 and 6 were administered and completed the entire English Only assessment
- 12.9% 12 children in Group 4 answered 15 or fewer questions correctly on the ROWPVT, height and weight was collected and assessment ended
- 87.1% 81 children were able to continue the assessment



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CONCLUSION

Summary of Results

- A multi-step language routing protocol increases the accuracy of routing bilingual children into the appropriate language for assessment and allows for appropriate adjustments during the actual assessment
- Parent report accurately routed 73.3%. Evaluations that take only parent report into account risk mis-identifying nearly 30% of children
- The Pre-LAS correctly routed the majority of children who spoke Spanish-only or primarily Spanish (Groups 2 and 3), but was less effective for children who spoke English-primarily with some Spanish (Group 5)

Limitations

- Although parents received consent forms in English and Spanish, parents with difficulties reading or writing may not have reported accurately on child's language use
- Children who spoke Spanish-only or primarily Spanish (Groups 2 and 3), were administered the Spanish Pre-LAS before the English Pre-LAS. This may have given them additional exposure to the task than children who spoke English-primarily with some Spanish (Group 5)

Next Steps

- Analyze data from both fall 2007 and spring 2008 by language group

MATHEMATICA
Policy Research, Inc.