



Screening Bilingual Language Development for English-Spanish Speaking Preschoolers

Presented by

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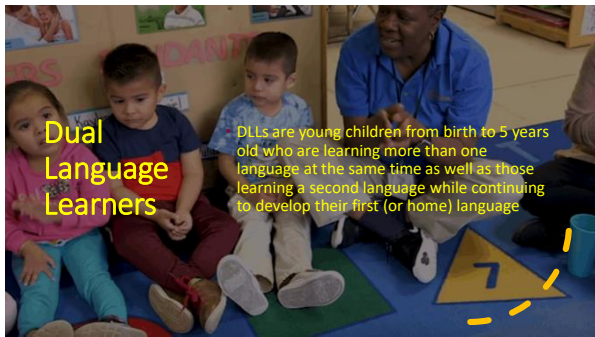
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Objectives

- DLLs: Definition and demographics
- Review why language is important for school success
- Understand how language development differs for English-Spanish bilingual speakers
- Understand best practices for screening the language development of bilingual preschoolers
- Explore tool options for screening English-Spanish bilingual preschoolers

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Language is a social instrument

- Connects people in many aspects of human life
- Allows us to share our ideas, thoughts, and feelings with others.



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- *Language helps us form concepts, understand abstractions (e.g., sad, freedom, infinity), follow reasoning*
- *Language helps us engage in self-regulation and executive function*



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Our secondary analyses of the NICHD Child Care data set suggests...

- **That language at school entry is the single best predictor of school outcomes** (reading, math, social skills, later language) in grades 1 and 3
- And of gains in outcomes scores from Grades 1 to 3; 3 to 5



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The scientific data show both direct and indirect relationships between language and reading

- Consider phonological awareness, “c-a-t” or “base ball”
- Rhyming, e.g., day
- Asking for definitions – What does this mean?
- Hearing stories to build knowledge of narrative structure
- Exposure to academic language (e.g., decontextualized talk, complex syntax, academic vocabulary)

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Detecting language issues early

- **Need language to understand text and learning**
- Early detection of language issues in general is important because intervention is more effective the earlier it begins
- It is better to assist improvement in oral language prior to embarking on the new challenges of literacy and other demands of the early school environment
- Oral language is essential for the demands of literacy beyond the level of sound-symbol correspondence

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Challenge: Persistent language problems are hard to identify early

- **Challenge**
 - “Late Talkers”
 - Relying on language production
 - Examiner must make judgement of correct response
 - Reticent child
- **Solution**
 - Comprehension
 - Better predictor of language difficulties
 - Reduce burden of communication

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Challenge: Identification of DLD in DLLs

- Developmental Language Disorders (DLD)
 - Language disorder not associated with a known medical etiology
- 3.3 percent of children ages 3-17 have a language disorder (7.7 percent in 5 to 6 year-olds)
- Individuals with DLD exposed to two bilingual contexts may not be correctly diagnosed
 - Overidentification
 - Underidentification
- **Exposure to a bilingual context is not a risk for DLD!!!!!!**

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Why do DLLs especially need good language screeners?



We've all heard stories of DLL children sitting in classrooms, not identified as having language issues, until they are failing in school

- "Let's wait until they learn enough English before we assess them"
- "We do not have the time or the appropriate bilingual personnel to assess these children"

We needed a better way to screen for potential language difficulties in DLLs

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Dual Language Learners: Assessment Challenges and Solutions

Some of the challenges are conceptual:

- Why is it hard to assess the knowledge of language when there is more than one language developing at once?

Some of the challenges are practical:

- How can we make it easier to assess DLLs when there may not be enough bilingual SLPs?

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Conceptual Challenges

- There is a continuum of proficiencies
- How do we distinguish language risk status from incomplete learning
- Spanish and English have internal variability i.e. dialects

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Language Learning Environment of DLL

home gándules nene blue white ropa wheel
 casa cupcakes she house horse Mamá he zapato marshmallow
 girl muñeca pizza hotdog gato
 perro shed baby niña fireman

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Knowledge Distributed Across Two Languages

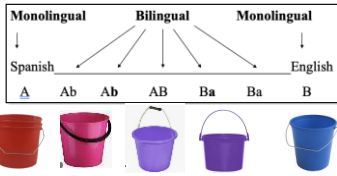
home gándules nene blue white ropa wheel
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 perro shed baby niña fireman

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Distributed Knowledge – Beyond Vocabulary

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Continuum of proficiencies in both languages








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Capture child's overall language skills - *regardless* of language

- Assess in Spanish *and* English
- Score assessment to capture strengths and needs, regardless of language
- Best Score

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	Spanish	English	Spanish/English
	casa	house	1
		giraffe	1
	manzana		1
	rana		1
		owl	1
TOTAL	3	3	5

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Capture multiple domains of language and language learning

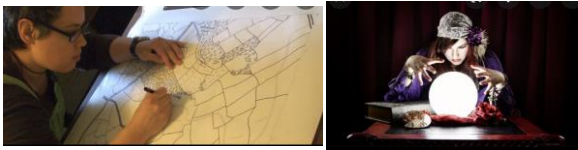
- Assess
 - Product
 - what the child knows-vocabulary and grammar
 - Process
 - ability to learn new language items

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Assess Product

(what the child knows-vocabulary and grammar)

"Find the clairvoyant?"
"Encuentra el cartógrafo."



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Assess Process (ability to learn language)

"Find the endolith."



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Process (ability to learn language)

"Can you find another endolith?"



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Process

• Encuentra el mixino.

Puedes encontrar otro? Enseñame el mixino



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Sensitive to linguistic variations

- Both English and Spanish spoken in the US are variable,
- there are dialect variations to be considered that should not be characterized as mistakes because the child is reflecting the language they learned

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AAE Example

- For speakers of African American English, the use of past tense or 3rd person marker is optional:
 - He finish(ed) his lunch
 - She always like(s) apples
- AAE has other grammatical properties – subtle aspects on verbs- that Mainstream English lacks:
 - He be working ten years at that factory
 - I fitna go home soon

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What does a Spanish-speaking child call the pink thing coming out of the glass?

- PITILLO
- POPOTE
- PAJITA
- CALIMETE
- SORBETE



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Practical Challenges

- Bilingual personnel often unavailable
- Training on administration and scoring often required
- Reports need to be informative for teachers and parents

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How do we reduce the burden on test administrator?

Personnel may not be able to speak Spanish, nor be able to interpret accurately what a child says in Spanish

Better if the test "gave itself", with automatic narration and registration of the child's answers.

But then it has to be appealing to the child!

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How to provide useful information to examiners, teachers, and parents?

- Rethinking language screening
 - Beyond Pass/Fail
 - Identify Strengths and Needs
 - Product
 - Vocabulary
 - Grammar
 - Process
 - Language(s)
- Need to have automatically generated, informative reports for teachers, parents (in English and Spanish), and other professionals

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Take Home Messages

- Language screening is an **important first step** in identifying children at-risk for developing language disorders
- Screeners for bilingual children must **take into consideration both languages** and account for children's distributed knowledge across the languages
- Screeners **must assess product** (what the child has learned) **and process** (child's ability to learn new language items)
- Ideally, screeners **should not require specialized training**, should be **automatically scored**, and produce **output that is easily interpreted** by parents and teachers
- Language screener should provide practitioners and parents **information on TD children's strengths and needs**

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Developing a Language Screener

- Our attempt to develop a screener for DLLs of English and Spanish:
 - How did we address these challenges?

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- A new kind of screener
- 15 minutes per section
- Dynamic events can be presented by animation
- Automatic narration and scoring
- Automatic reporting functions
- Does not need a professional to test
- Children like it!

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One Child Quils video



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Assessment must be applicable to population assessed

- **Challenge**
 - What the empirical literature showed for this age range (3-6)
 - What we know about bilinguals' language and dialect
 - What kind of mistakes children might make - for the foil design



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Matching the Sections

- **Solutions**
 - Structures assessed must be equivalent across languages
 - Nouns, Verbs, Prepositions, Wh-Questions
 - Unique features of one language [e.g., possessives in English ('s) and possessive in Spanish (de)] not assessed
 - Cognates avoided (cafeteria and caf  ter  a)



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Avoiding Bias

- **Solutions**
- Items must not discriminate between/against children who speak different dialects of Spanish or English
 - Dialect neutral words in Spanish (e.g., silla/falda)
 - Past 'ed in English
 - Characters portrayed show various ages, races, genders, and disability status

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Challenge: Assessments must examine ability to learn new language items as well as the product of learning (vocabulary and grammar)

- **Challenge**
 - Product of language must be examined
Vocabulary and grammar in prekindergarten are unique predictors of language variability in third grade
 - Process (ability to learn new words and structures)
Some children may be adept at learning but have limited exposure to high quality language interactions.
Others may be surrounded by rich language but have a limited capacity to generalize.
- **Solution**
 - Assess Product and Process

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Product-Syntax-Prepositional Phrases



Figure 6.7a. Prepositional Phrases (English). "The dog sat behind a table." (Soto)



Figure 6.7b. Prepositional Phrases (Spanish). "El mono se sentó atrás de la mesa." (Soto)

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- Syntactic Bootstrapping video

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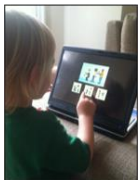
Knowledge is distributed across languages

- Challenge
 - Knowledge is distributed across two languages – and not just in vocabulary.
- Solution
 - **Best score** in each language assessed



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Reduce burden on administrator Minimize training/expertise/language fluency of test administrator



- Self contained assessment
 - Stimuli presented (Spanish or English)
 - Child touches screen
 - Response recorded
 - Automatic reports

Adult just sits with child and has only to offer support to continue.

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Assessments must be psychometrically sound

• Challenge

• Screening instruments must meet certain psychometric standards to be useful to practitioners

- Construct Validity
- Concurrent/convergent validity
- Internal reliability
- Test-retest reliability

• Convergent validity

- PPVT Correlation .727
- PLS-5 Best Score Correlation .693
- BESOS Correlation .368

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QUILS: ES Norming

- Norm based on 362 children ages 3;1-5;11
- Geographical distribution
 - Massachusetts
 - Pennsylvania
 - Delaware
 - Florida
 - Nebraska
- SES
 - 80% low SES

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QUILS: ES Interpretation

- Purpose: Screen children who need further assessment
- Refer for further assessment
 - Overall score below 20%
 - Vocabulary and Syntax below 20%
 - Process Score below 20%
- Sensitivity and Specificity – Indicators
 - Work in progress on QUILS:ES
 - Determining sensitivity and specificity
 - QUILS Sensitivity 80, Specificity >80

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Reports

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QULSES Student Detailed Report

Student Information: **Juanita Figueroa**

On 05/03/2022, Juanita Figueroa's Mini-raw data were analyzed using the Quick Interactive English Assessment™ English-Spanish (QULSES™) The Overall Best Score percentage rank of 88.6 indicates that Juanita Figueroa scored as well as or better than 88.6% of "typical" students in the identification grade. In addition to the Overall Best Score result, the Score percentiles across the three areas of the QULSES were calculated. Based on these calculations, a recommendation is listed below for Juanita Figueroa's results.

Area	Score	Percentile
Listening	100	100%
Reading	85	85%
Writing	70	70%

Summary and Recommendation

Based on the Overall Best Score, the student is recommended for bilingual placement at this time. Based on the student's individual area test scores, the student is not recommended for bilingual placement or additional training in any individual area.

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QULSES Reporte Para Los Padres

Información del Estudiante: **Juanita Figueroa**

El 05/03/2022, los datos brutos de Juanita Figueroa se analizaron utilizando el Quick Interactive English Assessment™ Inglés-Español (QULSES™). El porcentaje de puntuación general más alta de 88.6 indica que Juanita Figueroa obtuvo una puntuación tan buena o mejor que el 88.6% de los "típicos" estudiantes en el grado de identificación. Además de los resultados de la puntuación general más alta, se calcularon los percentiles de puntuación en las tres áreas de las QULSES. Basado en estos cálculos, se recomienda lo siguiente para los resultados de Juanita Figueroa.

Área	Puntuación	Porcentaje
Escucha	100	100%
Lectura	85	85%
Escritura	70	70%

Resumen y Recomendación

Basado en la puntuación general más alta, se recomienda la colocación bilingüe para el estudiante en este momento. Basado en las puntuaciones de prueba individuales del estudiante, no se recomienda la colocación bilingüe o la capacitación adicional en ninguna de las áreas individuales.

QULSES Parent Report

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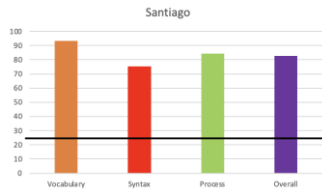


Results guiding practice

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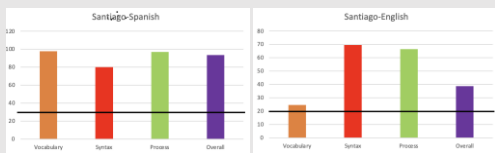


Case 1: Santiago



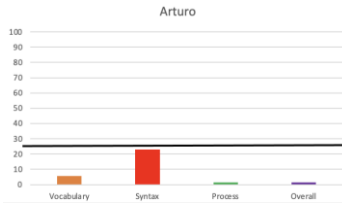
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Case 1: Santiago



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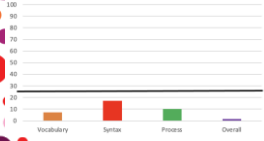
Case 2: Arturo



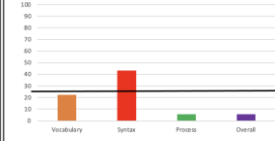
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Case 2: Arturo

Arturo-English



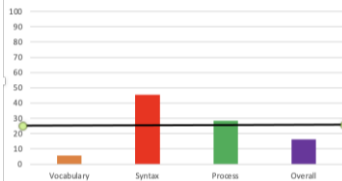
Arturo-Spanish



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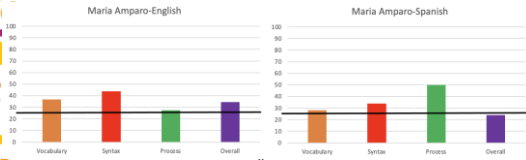
Case 3: Maria Amparo

Maria Amparo



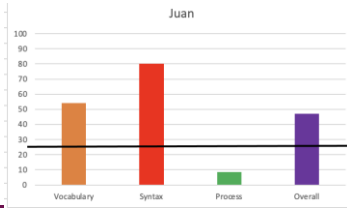
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Case 3: Maria Amparo



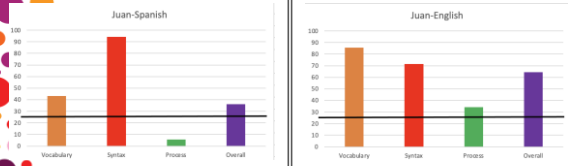
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Case 4: Juan



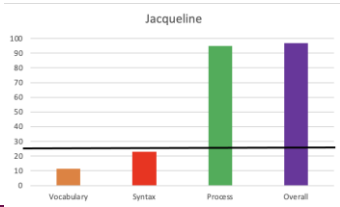
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Case 4: Juan



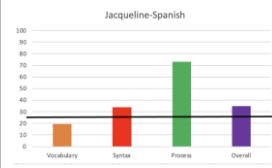
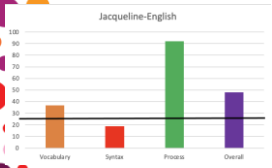
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Case 5: Jacqueline B



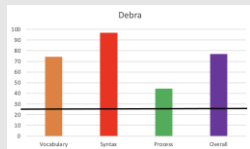
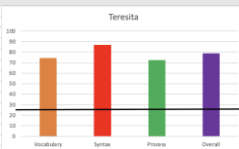
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Case 5: Jacqueline



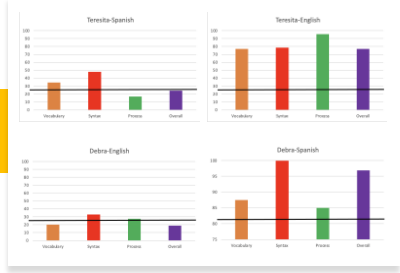
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Case 6 and 7: Teresita and Debra



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Case 6 and 7:
Debra and
Teresita



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