Practical Strategies for Monolingual SLPs
Assessing and Treating Bilingual Children

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Overview

• This presentation discusses how monolingual SLPs can provide effective evidence based practice speech-language assessments to differentiate between bilingual English language learners and bilinguals with primary language impairment. It also offers recommendations regarding therapeutic interventions for bilingual children with language impairments.
Learning Objectives

- After the completion of this presentation learners will be able to:
  1. Compare and contrast simultaneous and sequential bilingual language development including important bilingual language milestones.
  2. Describe characteristics of primary language impairment verses subtractive language acquisition.
  3. Discuss research driven EBP in assessment of bilingual learners.
  4. Implement learner appropriate intervention strategies.
Language Difference vs. Language Disorder

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You ssspeak funny!
How come you don’t have a liisssp?

He’s developing just fine. The babies in those commercials aren’t really talking.

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Communication Difference vs. Communication Disorder

- The distinction between a difference vs. disorder depends on “the language norm of the student’s speech community”. (Wolfram, Adger, & Christian, 1999, 165)

- To understand the atypical it is imperative to understand the typical
  - Bilingual developmental norms
  - Language transference
    - How L1 affects L2 acquisition
Normal Simultaneous Bilingual Language Development and Milestones Acquisition
Bilingual Language Development (De Houwer, 2012)

- Reaching of milestones for bilingual children may be uneven which is normal
  - One language develops faster for some or all aspects of language use than the other (De Houwer, 2009a)
  - Depends on quantity of language input, which varies for each language
  - Language heard most often develops faster (De Houwer, 2009b)

- Important Universal Developmental Milestones (all kids)
  1. Babbling
  2. Development of early language comprehension
  3. First word production
  4. Phrase Production (50+ words)
  5. Sentence Production

- Reached around same age for both bilingual and monolingual children (Clark, 2009)
Similarities between monolingual and bilingual language acquisition (Genesee, 2006)

- 12 months: emergence of first words
- 18 months: significant growth of vocabulary
- 24 months: early phrases
- 36 months+: refinement of communication

Temporary transfer errors from L1-L2 are possible but the timing for language milestones and the sequence of development are similar.
Simultaneous Bilingualism

- Language Acquisition Types:
  - Home L1 vs. Daycare/Community L2
  - One Parent-One language Approach should preferably be avoided if possible (MacLeod et al, 2013) (when parents speak both languages)
    - Imbalanced exposure leads to slowed receptive vocabulary development
    - Does not support the development of both of the child’s languages
  - Dual language acquisition is never equal!
  - Simultaneous dual language learners can distinguish two distinct contexts for the two languages
    - Home vocabulary vs. school vocabulary
Vocabulary differences between L1 and L2
Home vs. School

- Vocabulary in each language will probably be less (Pearson et al., 1993)
- Combined vocabulary for both languages will be same/better
  - Approximate overlap of only 30% of words with the same meaning
- Buac, Gross & Kaushanskyaa (2014) found that primary caregivers’ vocabulary knowledge, the child’s percent exposure to each language, and SES were robust predictors of children’s English, but not Spanish, vocabulary skills.
  - In the early school ages, primary caregiver vocabulary skills have a stronger impact on bilingual children’s second-language than native-language vocabulary
Important Bilingual Milestones (De Houwer, 2012)

- Comprehension of words and phrases in two languages
  - By 13 months, bilingual children appear to understand words in each language (De Houwer, Bornstein, & De Coster, 2006; De Houwer, Bornstein, & Putnick, 2013a)
  - Word comprehension in bilinguals is greater than in monolingual children, the latter need 5+ months to reach the same stage
    - The total number of words 13-month-old bilingual children understand = average number expected for monolingual children at 18 months (De Houwer et al., 2013b)
• Sentence production follows the grammatical rules of that language since children typically develop two separate grammatical systems for both languages (De Houwer, 2009b).
  • Use clear grammatical markers in their speech during the 3-4 word production stage
  • Significant variation but by +/- 3 years should typically say sentences with 4+ words in length
  • Many bilingual children reportedly show evidence of separate grammatical systems at +/- 2 years of age (De Houwer, 2009b).

• If bilingual children are mixing grammatical systems, they are not developing within normal bilingual limits and may require therapeutic intervention
  • Typical vs. Atypical profiles of code switching (see sequential development)
Bilingual Milestones and Age of Onset (De Houwer, 2012)

- Babbling
  - Develops approximately 6 to 7 months of age (Cruz-Ferreira, 2006; Pearson, Navarro, Oller, & Cobo-Lewis, 2010)
  - Not clearly linked to a particular language (Pearson et al., 2010)
- Development of early language comprehension
  - Develops approximately from 4+ months (e.g., response to name) (De Houwer, 2009b)
  - By +/- 13 months understand approximately +/-250 different words combined in both languages (De Houwer, 2013)
- First word production
  - Develops between 8 and 15 months (De Houwer, 2009b)
  - Many bilinguals produce at least one word in at least one language by 12 or 13 months (Águila, Ramon, Pons, & Bosch, 2005; De Houwer, Bornstein, & Putnick, 2013)
  - May say early words in one or both languages
- Lack of words in any language by 16 months of age is a cause for concern
4. Phrase Production (50+ words)
   - No studies re: when bilingual children reach this stage
   - Findings vary
   - Nakamura & Quay, 2012 study found
     - 50 different words at age 20 months
   - De Houwer et al., 2013 found
     - Combined words in 2 languages at 20 months around +/-254
   - Hoff et al. (2012) found
     - +/-200 words at 22 months
   - All studies indicate significant variability (David & Li, 2003)
   - Implications/causes for concern
     - **Most bilingual children say 50-words before 20 months of age**
5. Sentence Production

- Begins approximately between **15 and 23** months (De Houwer, 2009b)
- Most bilinguals combine words by 24 months (Hoff et al., 2012; Marchman, Martínez-Sussmann, & Dale, 2004; Patterson, 1998)
- Early word combinations vary (De Houwer, 2012)
  - Two words from the same language
  - One word from each language
  - May combine words in each of their two languages from the beginning, or just in one language
Typical vs. Atypical Code-Switching

- Mixing sounds, words, phrases, or grammatical structures of 2Ls is a normal pattern of actively decoding Ls the children are learning
  - Requires sophistication of syntactic and semantic skill (Paradis, et al., 2011)

- Calques- morphological or syntactic form of one L with lexical content of other L (e.g., I want leche)

- Use of calques is ‘normal’ bilingual behavior when bilingual mode is activated
  - However, use of hybrid calques when it is not activated (speakers do not have sufficient knowledge in a language) is a sign for concern

- Use of hybrid calques (morphemes of < 1 L in one word)
  - Root/affix: “thinkeando”
  - Intramorphemic: “schpreak”; “gardin”
  - False cognates: “and the frog winked [waved] goodbye”

- CS during first 3 years (before BICS acquisition) is also atypical
  - Boege Weinhold, 2014
Simultaneous dual language learning & language delay

• Dual language learning does NOT cause confusion/language delays in young children (Espinosa, 2008; DeHouwer, 2009; Paradis, et al., 2011)

• As per De Houwer (1999, pg. 1)
  • “There is no scientific evidence to date that hearing two or more languages leads to delays or disorders in language acquisition. Many, many children throughout the world grow up with two or more languages from infancy without showing any signs of language delays or disorder”.

• Petitto and Holowka’s (2002, p 23)
  • “Very early simultaneous language exposure does not cause a young child to be delayed with respect to the semantic and conceptual underpinnings at the heart of all natural language, and this is true regarding each of the young bilingual’s two native languages.”
Normal Sequential Bilingual Language Development and Proficiency Attainment
Sequential Bilingualism

- L2 acquisition after the first language (L1) is established
  - Typically after 1-2 year of age (DeHower, 2005)
- Sequential language learners (Majority Group)
  - Acquisition of L2 is supported and valued (Canada - Montreal & Quebec)
    - Focus on English/French language and culture
    - Bilinguals are likely to achieve a high degree of proficiency in both Ls
- Sequential language learners (Minority Group)
  - Language & culture of the group may not be supported or valued
  - US (Spanish in immigrant families)
    - Require numerous enriched opportunities to speak and be exposed to the non-majority language in order to reach proficiency
- Socioeconomic status plays a huge role
Sequential Bilingualism: From BICS to CALP

• Preproduction/non-verbal/observational stage (+/-3 months)
  • May attempt to rely on L1 in L2 situations
  • Primary focus on comprehension
  • Pointing, gesturing, yes/no

• Early production/telegraphic speech (+/-6 months)
  • 1-3 word utterances
  • rote phrases

• Emergence of speech/productive usage of L2 (6 months to 2 years)
  • Longer sentence use
  • Vocabulary expansion
  • Occasional grammar errors
Sequential Bilingualism:
From BICS to CALP

- Intermediate Proficiency of L2 (3-5 years)
  - Good comprehension
  - Asks questions
  - Share thoughts
  - Usage of complex sentences

- Advanced Proficiency (5-7 years)
  - Develop specialized vocabulary,
  - Reach grade level performance
  - May still struggle w/t advanced academic language concepts
Bilingualism categorizations (Valdez & Figueora, 1994)

- **Additive**
  - First culture is valued
  - Second language is added
  - First language continues to be developed and maintained at high level

- **Elective Bilinguals**
  - Learn another language in a formal setting
    - Foreign language requirement in school

- **Subtractive**
  - Second language is introduced at the expense of the first language and culture, which diminish as a consequence (Cummins, 1994)

- **Circumstantial bilinguals** (e.g., children of immigrants)
  - Learn L2 because they need it attend school
  - L1 skills usually decrease or may even be lost in favor of gaining L2
Subtractive Bilingualism

- Children with no schooling in birth language and less frequent use in the home more likely to lose their first language (Eilers et al., 2006)

- Subtractive Bilingualism Effects
  - Family relationships
  - Self-esteem
  - Sense of cultural identity
  - Peer relationships
  - School performance

- The attitudes of parents, siblings and peers toward the minority language can add value to, or subtract value from, the language.

- Increasing the attractiveness of the minority language (i.e., via books or mass media) can help maintain that language

- It is hugely important to show that L1 is a valued language! (Gottardo, & Grant, 2008)
**Language Proficiency: Terminology**

- **L2 Learners** (Cummins, 1996)
  - Basic Interpersonal Communication Skills (BICS)
  - Cognitive Academic Language Proficiency (CALP)
- **Internationally Adopted Children (IA)** (Gindis, 2005)
  - Communicative Language Competency (CLC)
  - Cognitive Language Mastery (CLM)
- **L2** (Cummins, 1984)
  - BICS → 1-3 years
  - CALP → 5-7 years
- **IA** (Gindis, 1999)
  - CLC → +/-6 months
  - CLM → ?
What is Academic Language?

- **Context Reduced/Cognitively Demanding Language**
  - Higher level abstract/complex language students need to succeed in school
    - Navigate grade level written text
    - Conduct research
    - Organize information

- **Social and Academic Language**
  - Not two totally separate entities
  - Exist along a continuum
## Academic Language Functions Hierarchy

<table>
<thead>
<tr>
<th>Seek information - Ask -wh questions</th>
<th>Infer - Make inferences  Predict consequences</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Inform</strong> - Recount information</td>
<td><strong>Justify and persuade</strong> - Give reasons for actions, decisions, or point of view</td>
</tr>
<tr>
<td><strong>Compare</strong> - Name similarities and differences</td>
<td><strong>Solve problems</strong> - Determine solutions to problems</td>
</tr>
<tr>
<td><strong>Order</strong> - Sequence information</td>
<td><strong>Synthesize</strong> - Integrate ideas to summarize information cohesively</td>
</tr>
<tr>
<td><strong>Classify</strong> - Group objects according to characteristics</td>
<td><strong>Evaluate</strong> - Assess and verify; Confirm value</td>
</tr>
<tr>
<td><strong>Analyze</strong> - Identify relationships and patterns</td>
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Affect of Age on L2 Acquisition

- Older students (ages 8-12) are faster, more efficient acquirers of school language than younger students (ages 4-7) (Collier, 1987)
- Younger students are still developing first language competency in reading and writing
- Older students use their first language competency as a source of transferrable skills have greater cognitive maturity and more strategies of acquiring new language
- Ultimate degree of L2 attainment is the result of a combination of social, environmental and psychological (vs. innate age-related biological) factors
  - Tends to predispose younger vs. older learners to greater L2 success
  - However, given the same level of support for L2 development, adolescents can also become highly proficient and can attain it faster than younger populations (Marinova-Todd, & Lightfoot, 2013)
Factors influencing success of older learners

- Socioeconomic Status
- Parental Education
- Home Literacy Facilitation and Exposure
- L1 Skills
  - Children with strong L1 skills show better acquisition of their second language (Cummins, 1991)
- Similarity between L1 and L2
- Maintenance of L1 use
- Motivation to learn L2
- Investment in L2 culture
- Acquisition Context
  - Quality of input and opportunities for L2 interaction mediate second language outcomes (Dixon et al., 2012)
Difference vs. Disorder (In a Nutshell)

- Communication difference affects multiple language domains
  - Phonology
  - Syntax
  - Semantics
- Communication differences are affected by L1 and are part of normal development of L2
- Communication disorders
  - Frequently have a genetic/hereditary component
  - Evident from the get-go (vs. the above)
  - Develop in L1 and WILL BE PRESENT IN BOTH L1 AND L2
Communication Disorders

- Begin in primary L1 language and affect any or all:
  - Vocabulary
  - Morphosyntax
  - Discourse and Narrative Ability
  - Social Pragmatic Skills
  - Reading/Writing/Spelling

- Language processing is slower and less efficient vs. TD peers (Kohnert, et al 2004).
- Significantly slower pace of learning vs. typical peers
- Working memory deficits
- Sustained/selective attention weaknesses
- Decreased speed of information processing
Indicators of Communication Impairment

- **Grammar/Morphology**
  - Bilingual children with LI perform more poorly on grammar tasks (Jacobson & Schwartz, 2005)
    - Greater error type frequency
    - Greater difficulty with novel verbs
    - Decreased morphological productivity
  - Less accurate than typically developing peers
- **Nonlinguistic processing measures** (e.g., memory, attention, visual perception tasks)
  - Performed poorly on these tasks than typically developing peers (Kohnert, Windsor, & Ebert, 2009)
Impact of language impairment on bilingual children (Roseberry-Mckibbin (2014))

- Slow language and academic gains even with assistance (resource room, ESL, etc.)
- Immature/deficient vocabulary
- Decreased utterance length
- Communication difficulties in a variety of settings (e.g. school, home, community) and with a variety of individuals (e.g. peers, teachers, parents)
- Memory and attention deficits in L1 and L2
- Lack of narrative coherence and cohesiveness
- Family history of language/learning issues
- Poorer language and cognitive skills as compared to peers
- Deficits in the comprehension and use of social language
Impact of language impairment (cont.)

- Impaired learning and use of two languages
- Evident in interactions with family members/peers
- Limited comprehension in L1
- Limited verbal output in L1
  - Short sentence length
- Decreased vocabulary in L1
  - Significant word retrieval
- Poor syntax and grammar in L1
- Social skills may be impaired
  - not culturally acceptable in L1 community
- Requires frequent repetition
- **Does not or rarely asks questions when fails to understand something**
Challenges of disorder identification

- It is not uncommon for school based SLPs to be the first to diagnose speech-language disorders in bilingual children.
- Children from low income households as well as adopted and foster care children may not get access to services until they enter school.
- Obstacles to receiving appropriate early medical care and related services (e.g., EI) include:
  - Family’s limited financial means
  - Lack of education/information
  - Cultural and linguistic barriers
Challenges of communication disorder identification

- Be careful with the ‘wait and see’ approach
- Many clinicians believe that if it’s a matter of lack of experience than the child will “catch up” given appropriate classroom support
- Meanwhile children with language impairments will fall further and further behind
- “The ‘wait and see’ period can be little more than the beginning or the extension of a cycle of communicative, academic, and/or social failure” (Gillam & Peña 2004, pg 2)
Initial Referral Considerations

- What age is the child?
- Who is referring the child?
- Why is the child being referred at this time?
- What is hoped to be gained by this screening/dynamic assessment?
- How do you know what skills to assess?
- What procedures will you be using?
Background History Collection

- Caregiver Interview and Intake
  - Prenatal History
    - Any maternal risk factors?
    - Family history of …?
  - Growth and developmental milestones
    - Early childhood
  - How’s the child’s behavior?
- Language deficits profile
  - Caregiver and Teacher fill out checklists
- Strengths/Weaknesses
Critical Questions (Elleseff, 2013)

- Is there a family history of mental illness?
- Is there a family history of substance abuse?
- Was the mother taking any substances prior to finding out she was pregnant?
  - Alcohol
    - Greatest Teratogen
  - Drugs
- If yes, how many months along was the mother when she found out she was pregnant?
Case History Questions

- What language(s) are spoken within the household?
  - By whom?
  - How much time do these people spend with the child?
- What is the child’s age of acquisition of these language(s)?
- What is the child’s length of exposure to each language?
  - What is the child’s language of choice with peers?
- Is the child receiving ESL services?
  - If yes, what’s the progress?
- How is the child’s academic performance compare to peers?
7 Critical Questions (Crowley, 2006)

1. What is the highest educational level of the primary caregiver?
2. Is there a family history of speech, language, or academic problems?
3. How does how the child’s speech and language development compare to his/her siblings at the same age or to peers in the child’s speech community?
4. Was the child’s performance during the evaluation typical?
5. Have there been any significant changes in the family structure recently?
6. What exposure has your child had to different languages or dialects?
7. What does your child do that makes you know (s)he is smart?
Critical questions for the teacher (Crowley et al, 2006)

1. What is student’s grade level achievement in reading and math?
   - Ask for data

2. What supports does s/he need?
   - What are student’s strengths and weaknesses?

3. How has he progressed over time?
   - Do you have a portfolio or examples of his work?

4. How do his language skills compare to those of his classmates?

5. Does the teacher concur with the conclusions the SLP reached as a result of the evaluation?

6. **Self Question**: Does it seem that the student is receiving an adequate education based upon the teacher interview?
Standardized or Static Testing

- Subject selection
- Test selection
- Accounting for bias
- Conceptual scoring
- Advantages/disadvantages
Selecting standardized tests for language assessment

- What is the selection criteria?
- Are there any ethical implications?
- How will you ensure fair and valid interpretation of results?
- How will testing be supplemented with informal measures which sample a variety of skills and reduce bias?
Standardized Testing: Criteria for Selection

- Does the test have a comprehensive/detailed manual?
- Did the sample size contain participants from the child’s particular ethnic/linguistic group?
- What was the sample size of a particular group in the normative sample?
- Is there adequate sampling of specific skills?
  - Multiple opportunities for production
- How current is the data?
- Does the test have strong reliability and validity?
- Are instructions for administration and scoring clear?
- How well-trained is clinician to administer the test?
- Are stimulus items appropriate for this child?
- Does the test yield diagnostic information needed to formulate treatment goals?
What about Age/Grade Equivalency Scores

- They are based on raw scores and not standard scores and should NOT be reported!
- They do not take into account variations in performance that might be common or expected in a particular age group
- “The least useful or most dangerous scores to be obtained from standardized tests because they lead to gross misinterpretations of a client’s performance” (Haynes & Pindzola, 2004, p. 63)
- Use standard scores, percentiles and standard deviations to denote performance for monolingual children
- Do NOT use with Bilingual Children!
Standardized Testing Limitations

- No sampling of natural social interactions
- Allow for little individual variation
- May not represent functional communication skills in social environments
- Child is a passive participant/no initiation of interaction
- Assess isolated aspects of communication
  - Lack of integration
- Do not assess conversational abilities or abstract language production
- Lack of assessment of non-verbal communication
- Do not account for individual differences in language learning
- Subjective Scoring
- Do not always translate into specific treatment goals
- Bilingual/Bicultural Testing Bias
Standardized Testing (cont)

- What does below average performance on a standardized test reveal about a bilingual speaker or a speaker from a low SES background?
- Cultural difference?
- Lack of exposure/knowledge/experience?
- Actual language impairment?
- What OTHER methods will you use to differentiate the above?
Limitations to Standardized Test Translations

• As per Bedore & Peña, 2008, p 17
  • “Once a test is translated it does not retain psychometric properties”
  • “Assumes that language development in other languages follows the same developmental trajectory”
  • “Targets linguistic forms that are markers of LI in the source language, but may miss important morphosyntactic forms, features of vocabulary use and narrative components in the target language that potentially differentiate performance of children with and without LI”
REEL-3 Limitations

- Routine use in EI because you can calculate R&E language scores
- Normative sample 78% white; 12% Black; 10% other?
- No bilingual children in normative sample
- Not sensitive in separating language disordered children from typically developing ones
  - 68% of population falls within +/-1SD
- Test is based on subjective caregiver data
- Assumes that all caregivers meaningfully verbally interact with children to teach specific skills
  - Labeling
- Some cultures interact limitedly while others don’t specifically teach particular skills
- Test authors actually caution clinicians against using this test as the “sole diagnostic tool” (pg 21)
Fluharty-2 (Luckhurst et al, 2010)

- Study with urban Headstart minority children (n = 1747) 3-6 years of age
- Over 95% of the children were African-American
- All subtest scores for this sample were significantly lower than normative means and standard deviations.
- Test bias was found for all subtests of the Fluharty-2 Screening Test, indicating that establishment of local norms is important for decreasing potential over-referral.
- However, significantly poorer skills across all language tasks were identified, suggesting that differences in language skills for this sample are likely to interfere with academic success in mainstream education.
EOWPVT Limitations (English and Spanish Versions)
Wyatt et al, 2006

- African American and Costa Rican children and adults
- Normative data for the Spanish version is based on Mexican children
- Errors related to dialectal differences were evident for CR children
  - Very few kids passed
- Several words were systematically missed by 50% or more of each group
- Multiple possible labels for frequently missed items were identified
- Poor quality of pictures
- Adults described the pictures as being unclear (clouds), too dark, and not fully depicting the item
  - Fireplace does not have a fire in it
  - Bridge does not have cars going over it
- Both versions of EOWPVT present with cultural bias
- Underestimate vocabulary knowledge
PPVT-4: Sweet, Csillag & Lebron (2009)

- Problems with construct and content validity
- Diagnostic accuracy
- Experience Bias
  - Tied to a child’s experiences and exposure to language
  - Influenced by their socioeconomic status (SES) and cultural background
- Lower vocabulary scores for bilingual children are not necessarily suggestive of language delays or disorders, esp in young children
  - “Typically developing bilingual children frequently show smaller vocabularies, or limited vocabulary for certain topics, in each of their languages than monolingual children on standardized and non-standardized tests due to their limited use or exposure to the languages in certain contexts”.
Overestimates child’s ability by inflating scores and not being sensitive to impairment
  - Minimally verbal children receive average to low average scores

Insufficient reference standard and insufficient discriminant accuracy to properly identify children with a language delay or disorder

Poor measures of validity, accuracy and reliability in determining the presence of language disorder or delay

“Due to cultural and linguistic biases such as vocabulary and labeling tasks as well as assumptions about prior knowledge and experiences (Hart & Risley, 1995; Peña and Quinn, 1997), this test should only be used to probe for information and not to identify a disorder or disability. Even for children from mainstream, SAE speaking backgrounds, the test has not demonstrated adequate validity and diagnostic accuracy. Therefore, scores should not be calculated to determine classification or referral to special education services” (17)

CELF-5 (Leader’s Project 2014)

• Lacks validity due to an unrepresentative standardization sample and an insufficient reference standard

• Lacks sufficient discriminant accuracy (norms included disordered children)
  • Cannot differentiate between typically developing children and children with language disorders
  • Cannot diagnose mild disabilities because of lowered mean scores (due to inclusion of disordered children in the sample)

• Lacks information as to how tasks and items were deemed appropriate and free from bias

• Contains significant linguistic, cultural and socioeconomic biases

• Primarily a test of vocabulary knowledge, which creates a bias towards Limited English Proficiency children as well as children from low SES households

• “Due to cultural and linguistic biases (e.g. exposure to books, knowledge of SAE, syntactic and grammatical structures, low frequency vocabulary words, known questions) and assumptions about past knowledge and experiences, this test should only be used to probe for information and not to identify a disorder or disability or used in educational placement decisions” (18)

Test of Pragmatic Language-2 (TOPL-2)

- For ages 6-18:11 with open ended questions re: social situations
- Addresses Components of:
  - Physical Setting
  - Audience
  - Topic
  - Purpose
  - Visual-gestural cues
  - Knowledge of Abstractions
- Monolingual students with WNL or high IQ do well but may have profound perspective taking deficits because the test focuses primarily on rules of polite conduct & involves very limited perspective taking.
- Bilingual children with WNL social skills but limited language exposure may due poorly due to cultural differences in communication and conduct (may not provide ‘mainstream’ responses)
Social Language Development Test-E

- Lacks information on:
  - Sensitivity and specificity measures
- Confidence intervals on select subtests range >1 SD
  - Margin too wide
  - Only appropriate to use with native English speakers
- Answers could be marked incorrect due to
  - Lack of vocabulary knowledge
  - Lack of exposure to certain experiences
    - Possibly related to SES status or lack of school instruction
    - Life experiences that the child simply hasn't encountered yet
- Multiple Interpretations subtest, may be confusing to a child unfamiliar with being "tested" in this manner
Social Language Development Test-A

- Lack of construct validity
  - does not measure what it actually purports to measure
- No Sensitivity Specificity Measures
- Lack of confidence intervals to account for standard error of measurement
- Heavily based on individuals exposure
  - entire subtest devoted to idioms
- Select topics may be inappropriate for younger children
  - Dieting
  - Dating
- Knowledge of vocabulary will affect performance
  - How many 12-17 year olds actually know the meaning of the word “sneer”?  
  - How many can actually show it?
- Culturally biased when it comes to certain questions regarding friendship and personal values
  - individual vs. cooperative culture differences
Test of Narrative Language Limitations

- Test-retest reliabilities were not reported by different age-groups
- Not recommended for children with hearing-impairments and/or unintelligible speech
- Caution in use with multicultural children/low SES children/“low print-low talk” environments due to
  - Limited-range of narrative types
  - Favors children w/t “mainstream” experience
- Age-groups by year are not equally-represented
  - 5-year old group (n=83) was small and almost ½ of the number
  - “upper-income” children are slightly overrepresented in the final sample.
Standardized Tests Conclusion

- Use standardized tests cautiously
- Standardized tests are seldom comprehensive so multiple assessment tasks need to be used to create a balanced assessment
- Supplement with functional assessment tasks to determine strengths and not just weaknesses to create treatment goals
- Use descriptive measures and NOT standard scores to qualify bilingual children for services
Dynamic Assessment (Gillam & Peña 2004)

- Test – Teach-Retest
  - Vygotsky’s model of cognitive development (1986)
- Concepts to teach via modeling and imitation in structured contexts
  - Grammar
  - Vocabulary
  - Narratives
- Determine the skills child has and his/her learning potential
- Determining the child’s response to clinical interactions
  - Interactive and process oriented vs. passive/static approach
- Differentiate between a typical L2 learner and a bilingual child with an impairment
- Can the child identify, produce and generalize taught information
- What is the potential for change given appropriate support?
Dynamic Assessment: Basic Framework

- **Pretest**
  - Assess child's current performance
- **Teach**
  - Through mediated learning experience (MLE)
  - Help the child develop strategies
  - Observe the child's ability to modify
- **Mediated Learning Experience (MLE)**
  - Teach-Watch-Adjust
  - Clinician's responsibility to ensure success
- **Post Test**
  - Compare performance to pretest
  - Assess transfer of strategies
  - For more information please see:
Dynamic Assessment Tasks

- **Nonword repetition**

- **Fast Mapping of New Words**

- **Graduating Prompting Task**
  - Uses a series of predetermined (scripted) prompts that systematically provide the child with progressively more support and information
  - Target: ZPD where the student is able to demonstrate knowledge/proficiency, judging the distance on a continuum
  - How well a child responds to graduated prompts can help to determine which language forms and structures to target and the amount of improvement a child might be expected to make in intervention (Bain & Olswang, 1995)
Dynamic Assessment Tasks (cont.)

- Language Sampling
  - Most non-biased (as compared to SD)
  - Story elicitation via pictures containing absurdities (e.g., SLAM Cards by the Leader’s Project)

- Testing the Limits – modifying traditional test procedures by rephrasing the questions, posing it differently, or encouraging the child to show what s/he knows

- [http://www.leadersproject.org/?s=dynamic+assessment](http://www.leadersproject.org/?s=dynamic+assessment)
Select Dynamic Assessment Materials

- Leaders Project ([http://www.leadersproject.org/?s=SLAM](http://www.leadersproject.org/?s=SLAM))
  - School Age Language Assessment Measures (SLAM) Resources in the form of elicitation cards from Preschool-High School
    - Following directions
    - Producing narratives
    - Engaging in perspective taking/ToM
    - Inferencing/Predicting outcomes
Dynamic Assessment: Questions to ask

- Is there appropriate attention to task?
- Does the child attempt to utilize taught strategies
  - Pointing
  - Repeating
- Is the child generalizing and applying skills to new tasks
  - Immediately
  - Over time
- How much support does the child need?
- How much effort is the SLP using?
Dynamic Assessment in Action
Teaching Grammar

• 2 sequentially bilingual children
  • HR (7.4) and CC (7.1)
• Born in US
  • Families from Puerto Rico
• Spoke Spanish until age 4 ½
  • Entered school and began learning English
• No identification until age 7
  • Both referred due to teacher’s concerns over classroom performance
• When tested in English by a monolingual SLP
  • “English appeared to be dominant language”
• Both scored -2 SD below on Sentence Structure Subtest of CELF-5
Teaching Grammar (cont)

- HR and CC do they have a Language Difference or Disorder?
- To differentiate examiner used FREE Syntax Assessment from Laureate
  http://www.laureatelearning.com/syntax-tests/
  - 33 grammatical forms (see below)
  - Each subtest pre-teaches correct forms
- Both children
  - Received 3 trials for each of the 14 subtests
- Appropriate forms were also modeled by examiner
  - Each child was asked to imitate
  - Then use form in a sentence
<table>
<thead>
<tr>
<th>Description</th>
<th>Example Forms</th>
</tr>
</thead>
<tbody>
<tr>
<td>Accusative 1st &amp; 2nd Person Pronouns</td>
<td>Me / You</td>
</tr>
<tr>
<td>Noun-Verb Agreement Copular 'Be'</td>
<td>Is / Are</td>
</tr>
<tr>
<td>Negation</td>
<td>Is / Is Not</td>
</tr>
<tr>
<td>Nominative 3rd Person Pronouns</td>
<td>He / She / They</td>
</tr>
<tr>
<td>Prenominal Determiners</td>
<td>These / Those</td>
</tr>
<tr>
<td>Noun-Verb Agreement Auxiliary 'Be'</td>
<td>Is / Are Verb+(-ing)</td>
</tr>
<tr>
<td>Pronominal Possessive Pronouns</td>
<td>Our/Your</td>
</tr>
<tr>
<td>Noun-Verb Agreement 3rd Person</td>
<td>Has/Have</td>
</tr>
<tr>
<td>Future Will/Aux. 'Be' / Past –ed</td>
<td>Will Verb/Is V+(-ing) / V+ (-ed)</td>
</tr>
<tr>
<td>Noun-Verb Agreement 3rd Person</td>
<td>Noun + Verb (-s) / Noun (-s) +Verb</td>
</tr>
<tr>
<td>Independent Possessive Pronouns</td>
<td>His / Hers/ Theirs</td>
</tr>
<tr>
<td>Present Passive</td>
<td>Is Verb+(-ed) By (Passive)</td>
</tr>
<tr>
<td>Spatial Prepositions</td>
<td>In / On / Under</td>
</tr>
<tr>
<td>Spatial Prepositions</td>
<td>In Front Of / Between / Behind</td>
</tr>
</tbody>
</table>
Results

- CC
  - After a very short period of time performance improved to low average subtest score
    - Exceeded expectations
      - Little examiner effort
      - Visible generalization
  - HR
    - Performance changed negligibly despite
    - Extensive examiner effort
Additional Testing/Probing Revealed:

- CC
  - L2 learner with limited opportunities to socialize with peers outside the home
    - Caught on quickly given support
- HR
  - True language disorder
  - Further parent questioning revealed that HR had significant deficits in L1
    - Went unrecognized at the time due to parent not being informed regarding typical developmental milestones
Dynamic Assessment Conclusions

- Can help to separate language difference from language impairment
  - Useful compliment to RtI
  - If used appropriately they may potentially reduce caseload size
    - If children with language differences were erroneously added to the caseload
- Forges a link between assessment and intervention
- Provides information on children’s learning potential
- Sensitive to progress
  - You see it and document it
- Ability to include adaptations and accommodations
  - Include strategies in reports for parents and teachers
Intervention Approaches for Bilingual Children
New Research on Dual Language Intervention
Thordardottir et al 2015

- Investigated the clinical effectiveness of monolingual versus bilingual language intervention (the latter involving speech-language pathologist–parent collaboration)

- Bilingual children with PLI (n = 29, mean age = 5 years)
  - Spoke a minority language at home and French as L2
  - Received 16 sessions of individual language intervention targeting vocabulary and syntax

- Results: French showed a significant treatment effect for vocabulary. Gains were made in syntax, but these gains could not be attributed to treatment given that treatment groups did not improve more than the control group. Home language probes did not suggest that the therapy had resulted in gains in the home language.

- Findings indicate that the bilingual treatment created through collaboration with parents was not effective in creating a sufficiently intense bilingual context to make it significantly different from the monolingual treatment
Service delivery considerations

- School age children
  - Treatment needs to be meaningful to the child and the family

- School
  - Academic language functions
  - Reading comprehension
  - Narrative abilities

- Home
  - Answer ‘wh’ questions
  - Retell basic narratives
  - Thematic vocabulary knowledge to complete functional tasks
    - Follow directions
    - Do chores
    - Speak to family members
Service Delivery Considerations (cont.)

- Terrell & Hale, 1992
  - Treatment should be sensitive to children’s cultural characteristics and learning styles
- Thematic instruction
  - Incorporate vocabulary, grammar, listening comprehension tasks into themes such as
    - Seasons, Holidays, Notable Events
- Multiple opportunities to practice listening and speaking
Developing Treatment Sensitive to Student’s Cultures

- Translanguaging – a term first coined by Cen Williams (1994) “the ability of multilingual speakers to shuttle between languages, treating the diverse languages that form their repertoire as an integrated system” (Canagarajah, 2011, p. 401)

- The complex multiple language practices of bilingual individuals involving flexible use of linguistic resources to make meaning of their lives and their complex worlds (Celic & Seltzer, 2011)
  - Engaging in a complex mode of language switching to adjust to daily needs
    - Speaking different language to different individuals
    - Getting a Google translation when searching for an answer/comparing results from different internet sites
    - Listening to music in one language but TV in another language
    - Negotiating words in different languages such as by TV announcers with features of X language and English fluidly used to narrate an event, explain a process, inform listeners, or sell a product
Translanguaging cont. (Celic & Seltzer, 2011)

- Bilinguals have one linguistic repertoire from which they select features strategically to communicate effectively vs. using two separate monolingual codes that could be used without reference to each other.
  - Considers the language practices of bilingual people as the norm, and not the language of monolinguals.
- Bilingual people utilize complex language and cultural practices that are fluid and changing depending on the particular situation and the local practice.
- Translanguaging supports metalinguistic awareness by allowing students to compare language practices and to explicitly notice language features.
Self-Questions re: Adding to the Curriculum

- Can I connect a particular content-area topic to my students’ cultures?
- Can I include different texts or resources to represent my students’ multicultural perspectives?
- Can I draw “people resources” from the community such as having a particular student’s family member speak to the class on a particular topic?

**Benefit:**
- Studies have found a connection between bilingualism / multiculturalism and higher self-esteem in children (Verkuyten, 2009)
- Helps emergent bilinguals learn English
- Helps students use all of their languages as a resource for learning, reading, writing, and thinking in the classroom
Bilingual Intervention: Language Activities

- Bilingual books/Apps

- Ned’s Head
  - 5 part attributes
  - Multiple meaning cards

- Memory Games
  - Match words with pictures/definitions

- Vocabulary Bingo
  - [http://www.makingfriends.com](http://www.makingfriends.com) (key word: bingo)
  - [http://bogglesworld esl.com/bingocards.htm](http://bogglesworld esl.com/bingocards.htm)

- Simon Says

- Ad interpretation
  - Perspective taking
  - Social skills
  - Narratives

- Create your own comic books
Developing Thematic Instruction

- According to Judy Montgomery “You can never select the wrong words to teach.”
  - Embed current events (e.g., holidays, elections, seasonal activities) in your therapy sessions
  - Make it classroom topic related (e.g., French Revolution, the Water Cycle, Penguin Survival in the Polar Regions, etc)
  - Do not select more than 4-5 words to teach per unit to not overload the working memory (Robb, 2003)
  - Select difficult/unknown words that are critical to the passage meaning, which the students are likely to use in the future (Archer, 2015)
  - Select words used across many domains
# Examples of Summer Related Vocabulary

<table>
<thead>
<tr>
<th>Adjectives:</th>
<th>Verbs:</th>
</tr>
</thead>
<tbody>
<tr>
<td>Scorching</td>
<td>Frolic</td>
</tr>
<tr>
<td>Fragrant</td>
<td>Lounge</td>
</tr>
<tr>
<td>Humid</td>
<td>Perspire</td>
</tr>
<tr>
<td>Breezy</td>
<td>Discover</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Nouns:</th>
<th>Idiomatic Expressions:</th>
</tr>
</thead>
<tbody>
<tr>
<td>Blossoms</td>
<td>A taste of summer</td>
</tr>
<tr>
<td>Freedom</td>
<td>Too hot to handle</td>
</tr>
<tr>
<td>Seashore</td>
<td>Trees dancing in the wind</td>
</tr>
<tr>
<td>Trail</td>
<td>Walking on sunshine</td>
</tr>
<tr>
<td>Temperature</td>
<td>You are my sunshine</td>
</tr>
</tbody>
</table>
Effective Thematic Instruction: Vocabulary

- For students to learn vocabulary directly it is important to explicitly teach them individual words & word-learning strategies (NRP, 2000).
- For children with low initial vocabularies, approaches that teach word meanings as part of a semantic field are found to be especially effective (Marmolejo, 1991).
- Rich experiences/high classroom language related to the student experience/interests.
- Explicit vs. incidental instruction with frequent exposure to words.
- Instructional routine for vocabulary:
  - Establishing word relationships
  - Word-learning strategies to impart depth of meaning
  - Morphological awareness instruction
Creating Effective Intervention Materials

- Thematic packet which contains a variety of opportunities for students to practice word usage
- Text Page
  - A story which introduces the topic and contains context embedded vocabulary words
- Vocabulary
  - List of story embedded vocabulary words with definitions, and parts of speech
- Multiple-choice questions or open ended questions
- Crossword puzzle with a word bank
- Fill-in the blank
- Synonym/Antonym Matching
- Explain the Multiple Meanings Words
- Create Complex Sentences (with Story Vocabulary)
Components of Effective Vocabulary Interventions

- Read vocabulary words in context embedded thematic short texts
- Teach individual vocabulary words directly to comprehend classroom-specific texts
  - Definitions
- Provide multiple exposures of vocabulary words in multiple contexts
  - Synonyms, antonyms, multiple meaning words, etc.
- Maximize multisensory intervention when learning vocabulary to maximize gains
  - Visual, auditory, tactile, etc.
Explicit Vocabulary Instruction

- Steps to new vocabulary introduction
  1. Say the word and ensure the students can pronounce it
  2. Provide a dictionary definition and a "student-friendly" explanation
  3. Give examples of the definition in a sentence
  4. Have the students practice using the word with each other in sentences
Components of Effective Vocabulary Interventions (cont.)

- Use multiple instructional methods for a range of vocabulary learning tasks and outcomes
  - Read it, spell it, write it in a sentence, practice with a friend, etc.

- Usage of morphological awareness instruction
  - An ability to recognize, understand, and use word parts (prefixes, suffixes that “carry significance” when speaking and in reading tasks

- Teacher Training
**Instructional Routine for Vocabulary:**

- Teach students how to figure out unfamiliar words based on context
- Context clues
  - A process that adults use automatically but requires explicit instruction at the elementary level
- As early as possible teach the students how to use parts of a word (and sentence) to determine its meaning
  - Greek and Latin roots of English for kids, how to locate the meaning of the word in early texts
    - Fancy Nancy series
- By 4th grade students learn most of their vocabulary from text vs. oral instruction
- By 4th grade students need to learn how to use parts of a word (and sentence) to determine its meaning.
How Monolingual Clinicians can Support L1

- By encouraging continued use of L1 at home and in the community, you are indicating that L1 language and culture have VALUE for the child.
- Encourage parents to use L1 at home w/ t child as well as to discuss L1 language and culture with the child.
- Sibling mediated learning (Kohnert, & Derr, 2004).
- Show interest in the child's language and culture.
  - Support at school.
- Incorporate L1 in therapy by asking the child to translate words/sentences from L1.
Obtaining Native Speakers’ Assistance

- If possible include a parent, relative, or a native-speaking assistant within the therapy session
  - Early intervention
  - Private practice
  - 1:1 School aid
  - Interpreter

- Mattes and Omark, 1991
  - You may use carefully trained paraprofessionals to implement but not to develop L1 goals

- Encourage parents to work with the child at home by reading books to their child
  - Ask bilingual colleagues to help you locate worksheets/website/apps in L1 to recommend to the parents
What is the ultimate goal?

- The goal for a bilingual child at home is not to gain academic language mastery but to gain communicative competency of L1
  - Kohnert, 2010; Pham, Kohnert, & Mann 2011
    - Use of software to promote efficiency in general information processing
- Kohnert, 2010
  - Use structured translation activities
    - Apps
    - Online dictionaries
- Kohnert, 2008; Kohnert et al., 2005; Kohnert, 2010
  - If possible consider mediated interactions with parents as partners in an SLP-directed language group
How to Bridge it with Home

- Home/School Communication Book
  - At school glue English vocabulary words with pictures
  - At home glue L1 vocabulary words with pictures
  - Practice vocabulary words at home in 2 languages (Cordero & Kohnert, 2006)

- Home/School Translation Activity
  - Use action pictures from “No Glamour Sentence Structure” and digital recorder
  - Family member records in L1→child translates to SLP in L2 while practicing correct structure

- Use of siblings to support narrative activities at home

- Saenz, Fuchs, & Fuchs, D. 2005
  - Peer mediated learning
  - Partner reading w/t story retell

- Use educational computer games/iPad apps in L1 and L2 at home
Conclusion:

- Use multiple functional tasks to create a balanced assessment
- Make your therapy thematic and culturally relevant by providing interventions relevant to the child and sensitive to his/her cultural background
- When providing intervention follow a hierarchy of skill attainment and attempt to incorporate multicultural/multilingual practices
- Monolingual clinicians can be highly successful in their interventions with bilingual students
- Happy Therapizing!

“Do More than you think you can.”

—John Wooden
Select Helpful Resource Bundles

- General Assessment and Treatment Start-Up Bundle

- The Checklists Bundle

- Narrative Assessment Bundle

- Social Pragmatic Assessment and Treatment Bundle
Related Smart Speech Therapy Resources:

- Understanding Complex Sentences

- Narrative Assessments of Preschool and School Aged Children

- Creating Functional Therapy Plan

- Assessment Checklist for Preschool Children

- Assessment Checklist for School Children
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