Using Assessments to Plan Interventions and Track Progress

By Anne Smyth
Why Do We Need Assessments?

Tells us areas where the child is succeeding and struggling
   Helps develop individual goals for intervention (parents, EI, SLP, to work on with child)

Track a child’s progress over time relative to her individual goals

Monitor educational program successes and opportunities for improvement in achieving outcomes for enrolled children
   Professional development needed?
   Justify increases in services?

Compare to normal-hearing, typically-developing peers
   Is the child ready to be mainstreamed?
Some Areas to Assess for Children with Hearing Loss

Audition/Listening skills

Speech

Language
  Receptive
  Expressive
  Vocabulary
  Conversation Skills
Audition Assessments

Early Intervention/Preschool

Little Ears (by Med-EL) - parent questionnaire about auditory behavior

ESP (Early Speech Perception) - child points to picture of word heard

WIPI (Word Intelligibility by Picture Identification) - points to picture of word heard
Goals for Audition

**Deficit:** Does not turn to his name.

**Goal:** Jack will turn to his name when spoken in a quiet room at 3ft, 6ft, and 12 ft.

**Deficit:** Misses all words starting with /m/.

**Goal:** Child will discriminate and identify minimal pairs of words with voicing differences using audition alone.
Speech Assessments

Ling Phonologic Evaluation - looks at vowels, suprasegmentals, consonants

Goldman-Fristoe Test of Articulation - standardized assessment

Weiss Speech Intelligibility Evaluation - uses a taped conversation sample
Speech Goals

Deficit:
Suprasegmentals are absent.

Goal:
Jane will imitate syllables varying in duration, intensity and pitch.

Deficit:
Omits final consonants in words.

Goal:
Jane will consistently use final consonants at the word level for all sounds she is able to produce.
Language Assessments

**Receptive Language**
- REELS (Receptive-Expressive Emergent Language Test) -- parent questionnaire, gives a standard score
- PLS-5 (Preschool Language Scales) -- Standardized assessment

**Expressive Language**
- REELS -- parent questionnaire, gives a standard score
- PLS-5 -- Standardized assessment

**Vocabulary**
- MacArthur-Bates Communicative Dev. Inventory -- parent questionnaire
- PPVT (Peabody Picture Vocabulary Test) -- Standardized assessment
- EVT (Expressive Vocabulary Test) -- Standardized assessment

**Conversation Skills**
- Conversational Competence Evaluation -- uses a taped conversation sample
- SALT (Systematic Analysis of Language Transcripts) -- gives MLU
Receptive Language

Deficit:
Will your baby sit still and listen for a full minute to a person who is showing and naming pictures of familiar things?

Goal:
Jane will attend for a full minute with an adult engaging her in conversation about familiar pictures.

Deficit:
When your baby hears new sounds or voices, does she or he often look toward those sounds?

Goal: Jane will turn her head to novel sounds or voices.
Expressive Language

Deficit:
Does your baby sometimes play games such as Pat-a-Cake or Peek-a-Boo?

Goal:
Jane will engage with an adult in games such as Pat-a-Cake and Peek-a-Boo.

Deficit:
Do your baby’s sounds vary from loud to soft and from high to low?

Goal:
Jane vocalizations will include suprasegmental features, such as variations in pitch, duration and intensity.
Vocabulary

**Deficit:**
List of spoken words the child *understands* is below average for age.

**Goal:**
Jane will increase her receptive vocabulary to age level.

**Deficit:**
List of spoken words the child *says* is 10 at age 2 (avg. for age 2 is 200-600 words).

**Goal:**
Jane will increase her expressive vocabulary to >300 words. (avg. for age 3 is ~950 words).
Conversation Skills

Deficit:
Does not exhibit turn-taking with conversation partner.

Goal:
Jane will maintain a topic with a conversation partner through four turn-takes.

Deficit:
Mean length of utterance (MLU) is 2 at age 4 (avg. MLU is 3.5-5.3 for 4-year-olds).

Goal:
Jane will increase her MLU to >3.5 (avg. MLU is 4-6.8 for 5 year-olds).
Data Analysis

**Besides developing goals, how can we use the data from assessments?**

Analysis!
Interdisciplinary management of child (audiology, SLP, ToD, other specialities)

**Analysis:**

**Individual** - track a child over time

**Programmatic** - track progress of many children over time
   - Can sub-group by hearing age, etiology, primary language, etc. to identify professional development or other program/staff needs

**Programmatic** - snapshot of status of many children in a given year, by age, by enter/end of EI, other
   - Average or better vs. below average; similar to measure to screened/unscreened or LFU
<table>
<thead>
<tr>
<th></th>
<th>March, 2013</th>
<th>October, 2014</th>
<th>April, 2015</th>
<th>September, 2015</th>
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</thead>
<tbody>
<tr>
<td><strong>Standard Score:</strong></td>
<td>81</td>
<td>79</td>
<td>90</td>
<td>94</td>
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<tr>
<td><strong>Percentile Rank:</strong></td>
<td>10</td>
<td>8</td>
<td>25</td>
<td>34</td>
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<tr>
<td><strong>Age Equivalent:</strong></td>
<td>2 yrs, 10 mo</td>
<td>3 yrs, 1 mo</td>
<td>4 yrs, 11 mo</td>
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Tracking Progress - Many Children Over Time
Tracking Progress - Many Children (snapshot)

Number of Children with an Average or better PPVT Score

- Year 1
- Year 2
- Year 3
- Year 4
- Year 5
- Year 6

- On track
- Not on track
Assessments - Conclusion

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  Helps develop individual goals for intervention (parents, EI, SLP, to work on with child)

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Compare to normal-hearing, typically-developing peers
  Is the child ready to be mainstreamed?
Conclusion - JCIH

JCIH Goal 6: All children who are D/HH should have their progress monitored every 6 months from birth to 36 months, through a protocol that includes the use of standardized, norm-referenced evaluations, for language (Spoken and/or Signed), communication (Auditory, Visual, and/or Augmentative), social-emotional, cognitive, and fine and gross motor skills.
Rationale*

The urgency of providing appropriate EI services is supported by evidence of reduced and limited success of EI strategies that are initiated after the sensitive period for language and auditory development.

Earlier identification of children who are D/HH has been established with the goal of prevention of delay, not remediation of delay. Thus, developmental assessment for this population is designed to ensure that the children are mastering the developmental skills appropriate for their age and cognitive functioning. [And ready for Kindergarten!]

Monitoring of developmental progress using norm-referenced instruments provides parents/families and EI providers objective data about the individual rate of their child’s development and can guide their decision making.

In addition, systematic monitoring of developmental progress has the potential to provide states/territories, local educational agencies, and individual early childhood programs with information that can guide system change and continuous improvement by identifying strengths and weaknesses within their system.
## Conclusion - JCIH

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<thead>
<tr>
<th></th>
<th>Nothing in Place (1)</th>
<th>Just Beginning (2)</th>
<th>Making Progress (3)</th>
<th>Established Practice (4)</th>
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<tbody>
<tr>
<td>6.1</td>
<td>Monitor developmental progress every 6 months (from 6-36 months) to ensure children are making appropriate progress</td>
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<td>6.2</td>
<td>Develop statewide assessment protocol for children who are DHH</td>
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<td>6.3</td>
<td>Develop a collaborative sharing network capable of collecting data</td>
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