Dynamic Assessment of Language
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Dynamic assessment measures how a student responds to intervention and the difference between what the student can learn unaided, and what he or she can learn with assistance.... Virginia Department of Education, 2013

Dynamic Assessment Methods Include:
1. Graduated Prompting
2. Testing Limits
3. Test-Teach-Retest
Use with any type of task to examine potential for learning / growth

Why This Is Important
Diagnostic Accuracy
- Sensitivity and Specificity
- Comprehensive Assessment Reference provides some data
- Consider data from test producers and research
- Consider norming sample
- Provide rationale

Confidence Intervals
- “No matter how carefully a test is developed, it will always contain some form of error or unreliability...In order to account for this error, standard scores are often reported with confidence intervals...Confidence intervals represent a range of standard scores in which the student’s true score is likely to fall a certain percentage of the time.
- Most confidence intervals are set at 95%, meaning that a student's true score is likely to fall between the upper and lower limits of the confidence interval 95 out of 100 times (or 95% of the time). www.nasponline.org/communications/spawareness/testscores.pdf
- “Reporting confidence intervals around a student’s score is particularly important in cases where the score may be used to make classification or placement decisions” (CELF-5 manual p. 147)

Sample Report Language:
There is a 95% chance that the student’s true performance on the [test name] falls somewhere between [ # ] and [ # ].

Dynamic Assessment
- “[dynamic assessment] methods can help identify learning potential and eliminate bias for students with cultural and linguistic differences or socio-economic risk factors.” (VDOE Guidance on Evaluation and Eligibility, 2013, p 12)

Dynamic Assessment Methods Include:
1. Graduated Prompting
2. Testing Limits
3. Test-Teach-Retest
Dynamic Assessment Measures

<table>
<thead>
<tr>
<th>Formal Systems</th>
<th>Informal Systems</th>
</tr>
</thead>
<tbody>
<tr>
<td>▪ Dynamic Assessment and Intervention Kit</td>
<td>▪ School Age Language Measures (SLAM)</td>
</tr>
<tr>
<td>▪ PEARL Decoding and Comprehension</td>
<td>▪ Story Champs</td>
</tr>
<tr>
<td>▪ Other purchased tools</td>
<td>▪ Test-teach-retest using decontextualized assessment as the first “test”</td>
</tr>
</tbody>
</table>

Dynamic Assessment Considers
- Mediated Learning Strategies
- Modifiability / Responsiveness
  - Prompts
  - Errors
  - Confidence
  - Rate
- Effort (child and adult)

Rating Responsiveness: video

Semantic Knowledge

<table>
<thead>
<tr>
<th>Static Assessment</th>
<th>Dynamic Assessment</th>
</tr>
</thead>
<tbody>
<tr>
<td>▪ Vocabulary tests measure <strong>exposure to words</strong></td>
<td>▪ Measures <strong>ability to learn new words</strong></td>
</tr>
<tr>
<td>▪ Highly effected by SES and mother’s education</td>
<td>▪ Differentiates WNL from SLI</td>
</tr>
<tr>
<td></td>
<td>▪ Fast Mapping (Dollaghan, 1987)</td>
</tr>
</tbody>
</table>

The Impact of Poverty on Language

“*The disproportionate use of vocabulary measures compared to morphosyntactic measures suggests that the content of the most frequently used standardized tests is not necessarily supported by the existing research literature.*” Betz, Eickhoff, & Sullivan, 2013

<table>
<thead>
<tr>
<th></th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Test Name</strong></td>
<td><strong>Mean Typical Language</strong></td>
</tr>
<tr>
<td>PPVT-III</td>
<td>100</td>
</tr>
<tr>
<td>PPVT-IV</td>
<td>100</td>
</tr>
</tbody>
</table>

“*Three-year-old children in professional families had a vocabulary as large as that of the parents in the study who were on welfare.*” Barton, 2004 Why Does The Gap Persist?
Early Language Experiences: Quantitative and Qualitative Differences (Hart and Risley, 1995)

<table>
<thead>
<tr>
<th></th>
<th>Words heard/hour</th>
<th>Words heard/4 yrs</th>
<th>Affirmatives/hour</th>
<th>Prohibitions/hour</th>
</tr>
</thead>
<tbody>
<tr>
<td>Professional Family</td>
<td>2,153</td>
<td>45 million</td>
<td>32</td>
<td>5</td>
</tr>
<tr>
<td>Working Class</td>
<td>1,251</td>
<td>26 million</td>
<td>12</td>
<td>7</td>
</tr>
<tr>
<td>Welfare</td>
<td>616</td>
<td>13 million</td>
<td>5</td>
<td>11</td>
</tr>
</tbody>
</table>

Cumulative Language Experiences:
- The 30 Million Word Difference
- The Effects of Weaknesses in Oral Language on Reading (5.2 yrs.)

The Impact of Poverty
- Maternal depression results in lower levels of warmth and responsiveness
- Each hour of TV leads to reduction in adult and child word counts and joint attention
- Socialization toward interdependent behavior and external control
- Likely deficits in:
  - Personal efficacy behaviors
  - Perseverance & self talk
  - Information Capital (knowledge based reasoning & analytic thinking)
  - Tier 2 words (high FQ not domain specific – similar, fortunate)

Tier 2 Words
Words that are used in text and during classroom discussions.
Instruction in general education should address these needs
Search “Tier 2 Vocabulary”
- For each $5,000 in extra income annually, vocabulary is raised an average of 2 points on a standard scale. Perkins, Finegood, & Swain, 2013

Consider Home Culture
- Examine experiences with
- Locus of control for behavior
- Structure and use of routines
- Use of rigid time limits
- Temporal concepts (first, next, then)
- Language and story use

Assessing Emotional and Behavioral Skills
- Perseverance
- Functional Skills
- Emotional Keyboard (Jensen, 2009)
- Data may be
  - Gleaned during assessment
  - Probed with explicitly tasks
Executive Functioning
- Assess with
  - Think aloud activities
  - Interview student to determine awareness

**Executive Functioning Teach Phase**
- Explicit Instruction on Strategies including:
  - Plan and how to start a task
  - Organize an approach
  - Develop a goal
  - Establish a schedule
  - Choose a strategy (what’s next)
  - Monitor and problem solve interruptions/issues
  - Sustained effort on task
  - Evaluate outcomes

**Executive Functioning Retest Phase**
- Assess student modifiability or responsiveness to instruction
  - Errors
  - Prompts
  - Confidence
  - Disruptions
  - Rate

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**Assessment of Language: Evidence Based Dynamic Assessment Methods**

**Fast Mapping:**
- Measures the ability to learn novel words from exposure rather than vocabulary tests that differentiate socio-economic classes
- Exposure to NOVEL words in context
- Assess receptive and expressive skills


**Narrative Assessment:**
_LSA offers SLPs the unique opportunity to resolve the “difference versus disorder” conundrum and establish local reference databases for non-mainstream dialect speakers (Horton-Ikard, 2010)._
Why Use Narratives?

- Relevant & contextualized task (content is taught as stories)
- Research shows up to 100% sensitivity and specificity as dynamic assessment tool
- Examine for multiple areas in one task
  - Morphology
  - Syntax
  - Semantics
  - Pragmatics

*The diagnostic accuracy of distinguishing a language difference from language impairment is substantially increased when LSA is used in conjunction with standardized testing*


Activity: Find the Clause

This is less fun than the last segment.
If I were called on, I would not answer.
The test will stop after this question.

Language & Grammar: Required knowledge for Assessment and Therapy

[www.leadersproject.org](http://www.leadersproject.org)

Grammar Fundamentals Six 15 minute modules address:

More Resources

[www.doe.virginia.gov](http://www.doe.virginia.gov) search “SLP” and “SLP Professional Development”

Metacognitive Verbs

<table>
<thead>
<tr>
<th>Students must be able to conceptualize the event even though it cannot be seen</th>
<th>Required for</th>
</tr>
</thead>
<tbody>
<tr>
<td>This skill is required for:</td>
<td></td>
</tr>
<tr>
<td>▪ Higher level discourse</td>
<td>▪ Story Grammar: Plan and Internal Response</td>
</tr>
<tr>
<td>▪ Complex episodic structure</td>
<td>▪ Episodic Complexity: Complete and Complex Episodic structure requires these components</td>
</tr>
<tr>
<td>▪ Behavior and emotional regulation</td>
<td></td>
</tr>
</tbody>
</table>

Metacognitive Verbs (MCV) – Decide, Imagine, Realize, Discover, Intend, Reflect

Additional Terms

- Verbs of Cognition
- Landscape of Consciousness
- Theory of Mind

*Narrative Writing in Children and Adolescents; Examining the Literate Lexicon (Sun & Nippold, 2012) LSHSS V 43, p 2-13*

Practicing Skills

Compare mental states of 2 characters to show differences in metacognitive processes.
Start with clear examples and life experiences
Move to inferencing and predicting later.

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Chart the Story Activity

<table>
<thead>
<tr>
<th>Character 1</th>
<th>Action</th>
<th>Character 2</th>
</tr>
</thead>
<tbody>
<tr>
<td>Dragon</td>
<td>was hungry</td>
<td>XX</td>
</tr>
<tr>
<td>Dragon</td>
<td>walked up to food cart vendor to get food</td>
<td></td>
</tr>
<tr>
<td>Vendor</td>
<td>ran away and hid</td>
<td></td>
</tr>
</tbody>
</table>
Post Story Questions

- Questions provided to probe additional areas
- There is no single correct answer
- Consider culture and experiences of the student
- Consider the rationale provided and examine flexibility in thinking

Dynamic Assessment

Consider using School-age Language Assessment Measure (SLAM) cards for dynamic assessment

1. Have student order cards and tell the story (test)
2. Provide mediated learning for areas that are weak (teach)
3. Have student order second set of cards and tell the story (re-test)

Dynamic Assessment: Teach Phase

- Identify areas for Mediated Learning
- Provide explicit instruction and strategies
  - Use of visual supports
  - Icons to represent story grammar elements
  - Use of descriptive language
  - Use of metacognitive verbs and internal states

DA Narrative Retest phase

- Retest using second set of cards
- Assess student modifiability or responsiveness
  - Errors
  - Prompts
  - Confidence
  - Disruptions
  - Rate

Before Assessing Students

- Use with typically developing students to get a sense of what is “WNL”
  - Language
  - Order of images
  - Cultural expectations
- Become familiar with the pictures and suggested order
- Consider areas examined by additional questions

While Using SLAM Cards

- Record stories for later transcription and analysis
- Consider alternate story order
  - Examine rationale
  - Examine flexibility in thinking
- Additional questions
  - Record for later transcription and analysis
  - Insight into cultural and linguistic differences

Evaluation Reports and Dynamic Assessment

Report Sections

1. Assessment Data
   1. Standardized/norm referenced
   2. LSA
   3. Dynamic Assessment
2. Analysis/Interpretations
3. Recommendations

Simply reporting scores is NEVER enough!
Dynamic assessment data

- Dynamic assessment data is a valid source of data in IDEA
  - Evaluation and Eligibility
  - Regulations
- Written reports should contain data from these activities
- Document type of dynamic assessment, materials used, and mediated learning sessions
- Provide citations if appropriate
  - Gutiérrez-Clellen & Peña 2001
  - Grigorenko 2010
  - Horton Ikard 2010
- Describe strategies and student performance and modifiability

Documentation

- Include data in report
- Consider including:
  - Summary of task (i.e., what, where, ...)
  - Summary of data (i.e., features present, % correct, missing components, ...)
  - Comparison data (typical expectation or examples)
  - Summary of strengths and weakness
- Materials Used

Describe materials used

- Provide citations when appropriate to address:
  - Diagnostic accuracy
  - Research on usage
  - Administration manual
  - Regulations and state/professional guidance

**Summary of Dynamic Assessment**

- Diagnostic accuracy of dynamic assessment documented in the literature
- Methods include:
  - Graduated Prompting
  - Testing Limits
  - Test-Teach-Retest
- Use with any type of task to examine potential for learning / growth
- Use to Assess
- Emotional and executive functioning
- Language
  - Vocabulary
  - MCV and internal states
  - Narrative analysis
    - Macrostructure
    - Microstructure
  - Prediction, inferencing, theory of mind
  - Gain cultural insight

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