Using Neuropsychology Processing Deficits to Identify Specific Learning Disabilities: Oregon & California Models

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Learning Outcomes

This session is designed to help you:

- Discuss the value of using a Pattern of Strengths and Weaknesses methodology when identifying Specific Learning Disabilities
- Understand the purpose of evaluation planning, assessment tool selection and data synthesis in a PSW model
- Use knowledge acquired in this session to begin implementing a PSW-based identification model in your own districts
Welcome and Introductions

- Allow us to introduce ourselves
- Who are our attendees today?
  - School districts
  - Grade levels
  - Demographics
- What is your current landscape regarding SLD in your district?
- Reasons for attending? What would you like to learn?
History of the PSW Model: 2004-2009

- **2004 Reauthorization of IDEA:**
  - States not to require IQ/ACH
  - RTI addition to SLD
  - Alternative, research-based models of identification

- **2009 LDAA White Paper**
  Parents have the right to a federal law that protects and strengthens SLD identification procedures; Response to Intervention (RTI) can be used as a pre-referral process method to give support and gather data on children who are below grade level and struggling to learn, but RTI is not a valid, stand-alone diagnostic tool for evaluation of learning disabilities; Comprehensive evaluations must be provided for students that do not respond to quality instruction.
1997 RTI/DIBELS OSPA Conference, Timberline Lodge

2004-2008 Regional and State Conferences on PSW

2007 Oregon Department of Education (ODE)
- 2007 Work Group: ODE invited OSPA through Oregon Branch of the International Dyslexia Association (ORBIDA)
- Feedback on Oregon Administrative Rules (OAR) resulting in RTI and PSW with no discrepancy formula in regulations
- Teamed with ODE to present to special education directors across state

2007+ Special Education Directors Conferences

2008 Technical Assistance Paper

2009 Eugene 4J Guidelines

2011 Majority of School Districts (75%)

2011-2013 Meeting of the Minds
Meeting of the Minds

- LDA White Paper operational
- Coming together of experts in assessment and intervention with practitioners from four representative school districts
- Multidisciplinary, IDA, LDA, speech pathology, Oregon Parent Training and Information Center
- First meeting for two days in Forest Grove, Oregon where the Supreme Court case reinforcing the need for comprehensive evaluations originated
Meeting of the Minds

- 2011 Meeting of the Minds, Forest Grove, OR
- 2011 Meeting of the Minds II, Verona, NY
- 2012 Meeting of the Minds III, Houston, TX
- 2012 Meeting of the Minds IV, Costa Mesa, CA
- 2013 Meeting of the Minds V, San Antonio, TX
- 2014 LDA Publication of National Model “Guidelines for School Districts”

Guiding Question: How to balance simplicity and science in writing SLD guidelines for school districts. Must be manageable and evidence-based
Meeting of the Minds Core

- Dan Miller
- Nancy Mather
- Steve Feifer
- George McCloskey
- Dawn Flanagan
- Sam Ortiz
- Brad Hale
- Milton Dehn
- Elaine Fletcher-Janzen
- Kevin McGrew
- Jim Hanson
- Karen Apgar
- Justin Potts
- John Garruto
- Andrew Shanock
- Monet Templeton
- Jenny Jones
Essential Elements of SLD Guidelines

- Comprehensive
- Collaborative disciplines, community providers
- Culture and language
- Valid constructs and ongoing research
- Bridge CHC, neuropsychology, dyslexia sciences
- Flexibility among models; fit to schools
- Relevant to instruction
- Consistent with SLD definition and law
Specific learning disability is defined as follows:

The term means a disorder in one or more of the basic psychological processes involved in understanding or in using language, spoken or written, that may manifest itself in an imperfect ability to listen, think, speak, read, write, spell, or to do mathematical calculations, including conditions such as perceptual disabilities, brain injury, minimal brain dysfunction, **dyslexia**, and developmental aphasia.
1. What are some of the challenges your district is facing around SLD identification?

2. Does the SLD evaluation model identify only the students with SLD?

3. Does your process seek to explain why a student may not be learning?

4. How do you define a comprehensive evaluation?
SLD

Responsiveness to instructional changes

Formative and Summative Assessments

Basic Psychological Processes

The process uses multiple measures on a principle of convergent validity to establish the “pattern”
As IDEA 2004 no longer requires an ability–achievement discrepancy as a criterion for SLD eligibility, attention has shifted to alternative means, in particular, RTI and assessment of cognitive processes. The former, to be fully effective, is embedded within a well-designed and institutionalized multitiered service delivery system. The latter is dependent upon advanced clinical skills and knowledge of cognitive science by the individual evaluator.

First, the IQ/achievement discrepancy model does not address the federal definition of a learning disability: use of the Full Scale IQ does not identify disorders in the basic psychological processes of children (Reynolds, 2008, p. 19).

Second, the need to establish severe discrepancy contributed to “wait to fail” model. Often, students who were at risk for academic failure had to wait until second or third grade until the “discrepancy” was severe enough for them to qualify for services (Mather & Kaufman, 2006). This resulted in a failure to close the achievement gap; students were resistant to remediation by the time of identification (Semrud-Clikeman, 2005).
Third, the discrepancy model resulted in an over-reliance on standard scores from standardized IQ and achievement tests. This resulted in many false positives and false negatives (student is made eligible as LD when they are not; student is denied eligibility when they have a disorder in a basic psychological process and are LD), a danger shared by RTI approaches (Fuchs, Fuchs, & Compton, 2004, p. 218).

Fourth, the model did not discriminate between disabled and non-disabled readers, nor did it discriminate between groups of children who were found to be difficult (and easy) to remediate (Velluntino et al., 2000).
Just say no

- Fifth, the IQ/achievement model failed to address adequately whether a lack of instruction or lack of effective curriculum was a causal factor for underachievement (Fuchs & Young, 2006). The large increases in numbers of students identified were costly and ethically indefensible.

- Sixth, the IQ/achievement model was not consistently applied (FED Vol. 71, No. 156 p. 46650).
Seventh, the model did not account for the heterogeneity of learning disabilities as is seen in children with PSW. Hale and Fiorello (2004, p. 22-23) write:

Our studies of children with learning disorders (Hale, Fiorello, et al., 2001) and replication studies using hundreds of children with and without disorders (Fiorello et al., 2001, Hale, Willis, et al. 2004) confirms that the IQ should never be interpreted when there is significant subtest or factor variability or scatter.

Eighth, the IQ/achievement discrepancy did not explain to students, teacher, or parents why a student was struggling to learn (Mather & Kaufman, 2006).
Summary: Full Scale IQ/Achievement Discrepancy

- Does not address SLD definition or explain why
- Wait to fail
- Overreliance on standard scores
- Meaninglessness of category to intervention
- Not consistently applied
- Full Scale IQ explains only 10-20% of specific areas of achievement
- Specific cognitive abilities (processes) explain 50-70% of specific areas of achievement (Flanagan et al., 2007)
What about RTI?

“What although RTI addresses some significant shortcomings in current approaches to SLD identification and other concerns about early identification of students at risk for reading problems, RTI should be considered as merely one important component within the larger context of the SLD determination process.”
Nothing in the PSW model precludes students from getting assistance.

In fact, many continue to targeted interventions and academic assistance, even if they may not qualify under SLD.

“Certainly help kids that need help. If RTI leads to this, then who can argue its value. But this approach will not put us closer to understanding learning disabilities.”

First, like the IQ/achievement discrepancy model, RTI does not address the federal definition of a learning disability as a disorder in one of the basic psychological processes (Reynolds, 2008, p. 19).

Second, use of RTI alone can lead to circular reasoning based on its measures being embedded within the curriculum (Suhr, 2008); the RTI argument would be that a student has a learning disability because she fails to respond to intervention and that she fails to respond to intervention because she has a learning disability.

Third, RTI does not answer the question why a student is failing to respond (Mather & Kaufman, 2006); therefore, under RTI, SLD remains an “unexplained” phenomenon.
Fourth, research on the technical adequacy of RTI measures is ongoing and staff development progresses; nevertheless, Oregon regulations require that assessment measures be technically adequate and administered by qualified personnel in order to be implemented now (OAR 581-015-2110(4)(a)(D)&(E).

Fifth, using RTI alone might be more a reflection of students’ learning environment than the students themselves. Reschly (2005) argued that it was not only reasonable but a desirable and expected outcome of RTI that a child would be considered learning disabled in one teacher’s classroom but not in a different classroom where the general achievement level and progress rate of other students was different (p 16).
Sixth, Reynolds reports that RTI is a method of identification by treatment failure, a system that has proven a poor model in medicine.

Seventh, Reynolds (p. 19) continues: RTI “ignores the needs of students with academic aptitude in the top 10% of the student population, in particular who are able to remain near grade level in one area while excelling in most other academic areas.”

Eighth, school teams must be aware that learning disabilities occur frequently in students with other disabilities and that RTI alone is not designed to address potential co-morbid conditions such as ADHD and Asperger’s Syndrome (Riccio, 2008, p. 87).
Ninth, assessment that addresses academics only has the potential to miss many other factors responsible for a student’s failure to thrive; therefore, RTI alone might not prove as useful as RTI with PSW in prioritizing interventions based on more than just the scope and sequence of academic instruction.

Tenth, empirical support for the effectiveness of RTI in practice might be based on selected reviews of the literature, researchers might ignore potential negative long-term impact on students with and without learning disabilities, and unquestioned, overly-optimistic views of the effectiveness of RTI alone should be avoided. (Reynolds & Shaywitz, 2008).
Emerging legal opinions in favor of integrated model of evaluation

Difficulty in establishing and maintaining fidelity when using RtI only for SLD identification

True to intent of adequate differentiation of a unique population of students with SLD

Minimize any delays in providing support to students who need it

Ensure a comprehensive look at student needs has been conducted to support instructional planning
Figure 1. The Wayne County process model of specific learning disability eligibility.
Why Neuropsychology?

- Neuropsychology answers the Questions: WHY ISN’T MY CHILD READING?
- Addresses SLD definition
- Can allow for earlier identification of students with SLD
- Research-based constructs
- DSM V acknowledges: “Delay or disorder in speech or language, or impaired cognitive processing (e.g., phonological awareness, working memory, rapid serial naming) in preschool years predicts later specific learning disorder in reading and written expression.”
- Differential diagnosis
- Guides interventions: two children can be failing at decoding for two very different reasons—one size fits all doesn’t work
What

Why

Full picture of SLD

How
PSW Added to Federal and CA State SLD Eligibility Regulations on July 1, 2014

- The reauthorization of the Individuals with Disabilities Education Act ("IDEA") in 2004 provided school districts with the option of using scientific, research-based intervention in determining whether a student has a specific learning disability ("SLD"). The amendments bring state regulations up to date by aligning them with the federal requirements. Consistent with federal law, the regulations now provide that a student "may" be determined to have a specific learning disability if he or she has a severe discrepancy between ability and achievement or if his or her achievement is determined to be inadequate pursuant to a "response to intervention" or "pattern of strengths and weaknesses" analysis. The regulations allow school districts to choose which method(s) they use to determine whether a student has an SLD.
What is the nature of a Specific Learning Disability?

Characterized by measurable skill deficits

• One or more of 8 specific domains (Basic Reading Skills, Math Calculations, Written Expression, etc.)
• Generally confined to a broad domain (e.g. reading) rather than global delays across domains

Endogenous in origin

• Traits inherent to the individual, manifested in relationship to the demands of the environment
• Neurologically-based deficits impacting specific cognitive skills, resulting in poor learning skill acquisition

Results in an uneven “pattern” of learning

• Not directly explained by failures in instruction or exposure to adequate learning opportunities
• Occur unexpectedly, given a range of student strengths
Key Points

Patterns of Strengths and Weaknesses

(≠ discrepancy model)

PSW is not a specific calculation or a specific procedure. It is a way of organizing data from a comprehensive evaluation and an adequate pre/referral process in order to allow teams to make well-informed eligibility decisions.
Purposes of a Comprehensive Evaluation

- Review instructional interventions
- Develop a clear statement of student present levels of academic achievement and functional performance
- Determine why a student is not making adequate academic progress
- Determine if a student meets eligibility criteria for a specific learning disability and/or other educational disabilities
- Generate an appropriate and effective plan to meet student educational needs
Teacher Brings to Building Screening Committee
- Progress Monitoring data
- Common Core State Standards matrix
- Hypothesis Checklists for academic areas of concern
  - Dyslexia/dysgraphia (Basic Reading Skills)
  - Rate/Accuracy (Reading Fluency)
  - Reading Comprehension
  - Procedural/Semantic/Visuo-Spatial (Math Calculation and Reasoning)
  - Dyslexia &/or Dygraphia/Oral & Written Language Disorder (Written Expression)
- Hypothesis Checklist for basic psychological processes
- Exclusionary Factors Checklist (may also be done by team before the meeting)
Basic Reading Skills/Dyslexia

Generate a picture of the deficits or indicators being experienced by the student and potential strengths by documenting input by various participants (parents, teachers, specialists, etc.) and by checking appropriate boxes below. Formulate hypothesis about the nature of the difficulty and identify potential exclusionary factors to be evaluated.

<table>
<thead>
<tr>
<th>Hypothesized Academic Indicator descriptions (Check blank box if description applies.)</th>
<th>Phonological</th>
<th>Orthographic</th>
</tr>
</thead>
<tbody>
<tr>
<td>Difficulty in single-word decoding</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Problem naming rapidly all the letters of the alphabet</td>
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<td></td>
</tr>
<tr>
<td>Problem identifying the sound of a letter</td>
<td></td>
<td></td>
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<tr>
<td>Problems blending two or more sounds</td>
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<td></td>
</tr>
<tr>
<td>Difficulty identifying that two words rhyme</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Overanalyzes phonemes (sounds) within words that slow down word recognition</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Failure to identify the starting letters of own name</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Failure to identify the initial phoneme of own name</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Frequent sight words are not automatically recognized but individual sounds are identified</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Makes guesses based on the first letter of unfamiliar words without sounding out</td>
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<td></td>
</tr>
<tr>
<td>Avoidance or behavior problems when asked to read</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Spelling that demonstrates pre-phonetic relationships or no phonetic relationship</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Phonologically accurate spelling with few common irregular orthographic patterns (e.g., “-ight”, “-tch”)</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Higher skill development in areas that are not dependent on reading</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

Check One: Primarily phonological type □ Primarily orthographic type □ Mixed type □
### Hypothesized Basic Psychological Processing Weakness relevant to BRS:

<table>
<thead>
<tr>
<th>Process</th>
<th>Weakness</th>
</tr>
</thead>
<tbody>
<tr>
<td>Language</td>
<td>Difficulty finding the right word to say or slow, labored, or limited amount of speech</td>
</tr>
<tr>
<td>Working Memory</td>
<td>Frequently asks for directions to be repeated or gets lost in the middle of a problem</td>
</tr>
<tr>
<td>Long Term Memory</td>
<td>Does well on daily assignments but doesn’t do well on formative assessment/end of week tests</td>
</tr>
<tr>
<td>Processing Speed</td>
<td>Takes longer to complete tasks than others the same age</td>
</tr>
<tr>
<td>Phonological</td>
<td>Difficulty hearing words exactly; makes small mistakes in the sounds of words (e.g., “I thought you said,”)</td>
</tr>
<tr>
<td>Attention</td>
<td>Mind appears to go blank, gets overwhelmed with difficult tasks, or can’t pay attention for long</td>
</tr>
<tr>
<td>Rapid Naming</td>
<td>Difficulty naming learned numbers, letters or names quickly, or substitutes the wrong name or word</td>
</tr>
<tr>
<td>Orthographic</td>
<td>Spells irregular words phonetically rather than by their visual pattern</td>
</tr>
<tr>
<td>Executive Functions</td>
<td>Difficulty figuring out what is needed for a task, getting started, or sticking to a plan of action</td>
</tr>
</tbody>
</table>

### Hypothesized Basic Psychological Processes Strength relevant to BRS:

<table>
<thead>
<tr>
<th>Process</th>
<th>Strength</th>
</tr>
</thead>
<tbody>
<tr>
<td>Visual Spatial</td>
<td>Adequate understanding of visually presented materials</td>
</tr>
<tr>
<td>Fluid Reasoning</td>
<td>Seems to make connections among concepts even when explaining them verbally may be difficult</td>
</tr>
<tr>
<td>Sensory Motor</td>
<td>Coordination, drawing, and fine-motor skills appear adequate</td>
</tr>
</tbody>
</table>
Exclusionary Factors Worksheet

**Evaluation and Consideration of Exclusionary Factors for SLD Identification**

An evaluation of specific learning disability (SLD) requires an evaluation and consideration of factors, other than a disorder in one or more basic psychological processes that may be the primary cause of a student’s academic skill weaknesses and learning difficulties. These factors include (but are not limited to): vision/hearing, motor disabilities, intellectual disability (ID), social/emotional or psychological disturbance, environmental or economic disadvantage, cultural and linguistic factors (e.g., limited English proficiency), insufficient instruction or opportunity to learn, and physical/health factors. These factors may be evaluated via behavior rating scales, parent and teacher interviews, classroom observations, attendance records, social/developmental history, family history, vision/hearing exams, medical records, prior evaluations, and interviews with current or past counselors, psychologists, and paraprofessionals who have worked with the student. Noteworthy in the fact that students with (and without) SLD often have one or more factors listed below that contribute to academic and learning difficulties. However, the practitioner must rule out any of these factors as being the primary cause of a student’s academic and learning difficulties to maintain SLD as a viable classification/diagnosis.

**Vision (Check All that Apply):**
- Vision test recent (within 1 year)
- Vision test outdated (> 1 year)
- Passed
- Failed
- Wears Glasses

**NOTES:**

**Hearing (Check All that Apply):**
- Hearing test recent (within 1 year)
- Hearing test outdated (> 1 year)
- Passed
- Failed
- Uses Hearing Aids

**NOTES:**

- **Vision**
- **Hearing**
- **Motor disabilities**
- **Intellectual disability**
- **Social/emotional/psychological**
- **Environment/economic**
- **Cultural/linguistic**
- **Opportunity to learn**
- **Physical/health factors**

(Mascolo & Piana, 2011)
Evaluation-Eligibility Form

- Review of current data (What teacher, parent, and team bring to BSC)
- Grade level standards tests
- Observation
- Progress Monitoring (adequate instruction, progress monitoring)
- Pattern of Strengths & Weaknesses (achievement, cognition)
- Developmental (and educational/family) history
- Other assessment(s) related to cognition, fine motor skills, perceptual motor skills, communication, social/emotional status, perception, or memory
- Medical statement
**Developmental history.** For initial assessments, teams must obtain a developmental and family history and report on any relevant environmental or personal factors that affect student participation and learning (e.g., racial or historical trauma, cultural expectations, family or personal history, rural/urban setting, language and acculturation status, etc.).

**Medical statement.** If a student has a medical condition that affects educational performance, the team must obtain a physician’s statement to document the conditions as well as current medical interventions. The evaluation report must contain a statement of how any medical condition affects student body function and structure (including psychological functions) and how this relates to the suspected disability.)
Pattern of Strength and Weaknesses

- 1) Achievement relative to age
- 2) Performance relative to age
- 3) Achievement relative to state grade level standards
- 4) Performance relative to state grade level standards
- 5) Achievement relative to intellectual development
- 6) Performance relative to intellectual development
# A six-box interpretation

<table>
<thead>
<tr>
<th>Age</th>
<th>State approved grade level standards</th>
<th>Intellectual Development</th>
</tr>
</thead>
<tbody>
<tr>
<td>Achievement</td>
<td>Standardized Academic Achievement</td>
<td>State Assessment Test</td>
</tr>
<tr>
<td>Performance</td>
<td>Observation Report Card</td>
<td>CCSS Matrix Report Card</td>
</tr>
<tr>
<td>Performance/Age</td>
<td>N/A</td>
<td></td>
</tr>
<tr>
<td>--------------------------</td>
<td>----------------------------------------------------------------------</td>
<td></td>
</tr>
<tr>
<td>Performance/State</td>
<td>N/A</td>
<td></td>
</tr>
<tr>
<td>Achievement/State</td>
<td>N/A</td>
<td></td>
</tr>
<tr>
<td>Achievement/ID.</td>
<td>N/A</td>
<td></td>
</tr>
<tr>
<td>Performance/ID.</td>
<td>N/A</td>
<td></td>
</tr>
<tr>
<td>Psychological Processes</td>
<td>N/A</td>
<td></td>
</tr>
</tbody>
</table>

### Psychological Processes

<table>
<thead>
<tr>
<th>Standardized Assessments</th>
<th>Rating Scales</th>
<th>Semi-Structured Observations or Interviews</th>
<th>Classroom Observations and/or PPS Direct Observation of Psychological Processes Worksheet</th>
</tr>
</thead>
<tbody>
<tr>
<td>Strengths:</td>
<td>Strengths:</td>
<td>Strengths:</td>
<td>Strengths:</td>
</tr>
<tr>
<td>Weaknesses:</td>
<td>Weaknesses:</td>
<td>Weaknesses:</td>
<td>Weaknesses:</td>
</tr>
<tr>
<td>Inconclusive:</td>
<td>Inconclusive:</td>
<td>Inconclusive:</td>
<td>Inconclusive:</td>
</tr>
</tbody>
</table>

### Exclusionary Factors

<table>
<thead>
<tr>
<th>Lack of appropriate instruction</th>
<th>Yes</th>
<th>No</th>
</tr>
</thead>
<tbody>
<tr>
<td>Lack of English language proficiency</td>
<td>Yes</td>
<td>No</td>
</tr>
<tr>
<td>Cultural factors</td>
<td>Yes</td>
<td>No</td>
</tr>
<tr>
<td>Environmental factors</td>
<td>Yes</td>
<td>No</td>
</tr>
<tr>
<td>Economic disadvantage</td>
<td>Yes</td>
<td>No</td>
</tr>
</tbody>
</table>
- **Standardized, norm-referenced assessments of basic psychological processes.** Assessment of basic psychological processes is required to meet the federal definition of a learning disability.

- **Performance of basic psychological processes:** Results from cognitive testing must be confirmed by assessments that document the same psychological processing weakness or weaknesses in the general education classroom or other learning environment.
Basic Psychological Processes

- Working Memory
- Fluid Reasoning
- Processing Speed
- Phonological Awareness
- Long Term Memory
- Language
- Visual
Other assessment(s) related to cognition, fine motor skills, perceptual motor skills, communication, social/emotional status, perception, or memory.
Results from cognitive testing are confirmed by assessments that document that these weaknesses are observable in the general education classroom. Standardized measures include:

- Children’s Psychological Process Scale, Behavior Rating Inventory of Executive Function-2, Comprehensive Executive Function Inventory, Behavior Assessment System for Children 3, Conners Rating Scale 3

Non-standardized methods include semi-structured interviews and observations such as:

- Executive Function Student Observation Form, Executive Function Structured Interview, Thinking Skills Inventory, Ziggurat Checklists

Teams may also use the PPS direct observation of psychological processes worksheet
Examine results from the Working Hypothesis Worksheet for academics. Determine the relationship between the worksheet and the results obtained from standardized academic measures, history, and observations. Confirm or disconfirm the working hypotheses for both academics (federal category) and psychological processes. Confirm or disconfirm brain-based category.
Eligibility

Using federal academic category, **determine** if there is a relationship between the academic weakness and the cognitive weakness using the Cognitive to Achievement GRID in the Appendix. If there is a relationship between the academic and cognitive weakness, consider PSW. If there is no cognitive weakness or no relationship between process and weakness, consider alternative explanations.
<table>
<thead>
<tr>
<th>Cognitive to Achievement Grid</th>
<th>Assessments</th>
<th>Alternative Assessments</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>Visual-Spatial</td>
<td>Language</td>
</tr>
<tr>
<td>Basic Reading Skills</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Reading Fluency</td>
<td></td>
<td></td>
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<tr>
<td>Reading Comprehension</td>
<td></td>
<td></td>
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<tr>
<td>Math Calculation</td>
<td></td>
<td></td>
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<tr>
<td>Math Problem Solving</td>
<td></td>
<td></td>
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<tr>
<td>Written Expression</td>
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</tbody>
</table>
Determine that the student’s weakness or weaknesses in a basic psychological process or processes are within an otherwise normal cognitive ability profile. Please see exceptions to this guideline in the Appendices.
Otherwise Normal Cognitive Ability Profile

- Hale, B. *(WIAT-III Manual)* One strength in either verbal, visual, or fluid reasoning skills; one achievement weakness, one cognitive weaknesses that is statistically significantly below the cognitive strength and unusual in the population. (Dual Discrepancy/Consistency)

- Flanagan, Ortiz, & Alfonso *(Essentials of Cross Battery Assessment III)* PSW Analyzer. Dual Discrepancy/Consistency

- Dehn & Szasz (Psychological Processing Analyzer PPA 4.2) Analyzes 11 psychological processes, 8 SLD achievement areas; consistency between low processes and related areas of low achievement; statistically significant intra-individual strengths, weaknesses, deficits, assets, and pair differences; normative weakness cutoff options at 80, 85, and 90 with SD of 15

- Berninger *(PALS-II, Brain Literacy for Educators and Psychologists)* and Mather & Wendling *(Essentials of Dyslexia Assessment and Intervention)* Comprehensive assessment achievement and neuropsychological processes. One possible marker of dyslexia: verbal strength, basic reading skills weakness
Otherwise Normal Cognitive Ability Profile

- Eugene 4J (PSW Pro Website) Three points of evidence for an academic strength and an academic weakness, measured/observed related cognitive weakness, measured/observed unrelated cognitive strength

- Portland (2014) FSIQ 85 or above with at least one academic weakness (in achievement and performance in age and/or grade level standards) and one related cognitive weaknesses (in achievement and performance) and/or a strength in one high-g basic psychological process with a significantly lower BSP and ACH with confirmation of all data regarding brain-based category.

- Ventura (2015 PSW Procedural Manual) Intact functioning in many processes and abilities and possible normative cognitive or academic strengths; moderate to high (or statistically significant) variation in cognitive ability and processing profile; normative deficits in specific cognitive abilities and processes; normative deficits in specific academic area(s); empirical or ecologically valid relationship between cognitive and academic deficits; )
- **Report** all assessment findings in either a team or individual report format.

- **Link** assessment results to appropriate intervention and/or accommodations.
- Dyslexia

- Phonological Subtype = Explicit phonological and phonics program (Bottom Up; e.g., Fundations, Road to the Code, Read Well)

- Orthographic Subtype = Whole word or lexical level strategies (Top Down: e.g., Read Naturally, Wilson, Soar to Success)

- Mixed Subtype (Phonological and Orthographic) – Balanced literacy program with bottom up and top down (e.g., Read 180, LiPS is mostly bottom up with Visualizing and Verbalizing for Reading Comprehension is top down)

Links to Intervention—Psychological Processes

- Working Memory: multi-sensory reading and math programs, PASS, CogMed
- Processing Speed: reading fluency programs
- Phonological Awareness: phonological and phonics programs, and if these fail, orthographic approaches (strengths to compensate for weaknesses)
- Orthographic Processing: “top down” instruction in morphology, word families, word origins, etc.
- Long-Term Retrieval: distributed practice, frequent review
- Fluid Reasoning: explicit teaching in problem-solving techniques, particularly in reading comprehension

Pattern of Strengths and Weaknesses in SLD: What’s It All About? OSPA Technical Assistance Paper

Working Memory and Academic Learning (Dehn, 2008)

Long-Term Memory Problems in Children and Adolescents (Dehn, 2010)
Case Study

Student: John

3rd grade male
Primarily reading problem
Report of attention issues
Retained in 2nd grade between schools
History of brief homelessness
Frequent school moves
Attendance 95%
Reading Comprehension: below 10\textsuperscript{th} percentile

Math skills: 30\textsuperscript{th}-50\textsuperscript{th} percentile
Choosing Assessment Tools and Procedures
Student: John

KABC-II

<table>
<thead>
<tr>
<th>Scale</th>
<th>Sum of Scaled Scores</th>
<th>Standard Score</th>
<th>Percentile Rank</th>
<th>95% Confidence Interval</th>
<th>Qualitative Description</th>
<th>Normative &amp; Personal Weakness</th>
<th>Normative &amp; Personal Strength</th>
<th>Infrequent (occurs rarely)</th>
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<tbody>
<tr>
<td>Sequential (Gsm)</td>
<td>10</td>
<td>71</td>
<td>3</td>
<td>63-83</td>
<td>Below Average</td>
<td>✓</td>
<td></td>
<td>✓ &lt;5%</td>
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<tr>
<td>Simultaneous (Gv)*</td>
<td>24</td>
<td>111</td>
<td>77</td>
<td>100-120</td>
<td>Average</td>
<td></td>
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<tr>
<td>Learning (Glr)</td>
<td>16</td>
<td>89</td>
<td>23</td>
<td>81-97</td>
<td>Average</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Planning (Gf)</td>
<td>24</td>
<td>111</td>
<td>77</td>
<td>99-121</td>
<td>Average</td>
<td></td>
<td>✓</td>
<td>✓ &lt;10%</td>
</tr>
<tr>
<td>Knowledge (Gc)</td>
<td>17</td>
<td>92</td>
<td>30</td>
<td>84-100</td>
<td>Average</td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>
Student: John

Basic Psychological Processes
- Processing Weakness (KTEA-II Rapid Naming 4th %ile) (WJ-III Processing Speed 7th %ile)
- Memory Weakness (KABC-II Sequential 3rd %ile)

Strengths:
- (KABC-II Knowledge)
- (KABC-II Planning)
- (KTEA-II Listening Comp)

Skills Assessments
- Reading Fluency Weakness
- Written Expression Weakness

Strengths:
- Met Math Benchmarks
- Listening Comprehension
- Math Computations/Applications

IIPM Process
- Rate of growth (< peers)
  Relative position (<10%ile)
- Interventions named and delivered

- No evidence of writing intervention
- No attempted changes to intervention type

Formative and Summative Assessments
- Responsiveness to instructional changes
Recommendations for John?

1. Was the evaluation sufficiently comprehensive?

2. Did you learn something you didn’t know before the assessment?

3. What recommendations would you make?

4. What other factors would influence the eligibility decision?
PSW Model and ELL’s

- PSW links CHC (XBA) theory, dyslexia sciences, and school neuropsychology theoretical frameworks and practice models
- Integrates consideration of impact of culture and language on educational experience throughout assessment process
- Consideration of internal and external (generalizability) validity of assessment results
- Use of C-LIM and subsets of normed samples to choose instruments and analyze results
Understand that education is a social entitlement achieved only when we provide equitable educational opportunities with high expectations for all students.

Understand the linguistic, cultural and experiential context of every student and how to systematically incorporate this knowledge (including use of native language) into curriculum and instruction.

Based on students’ unique backgrounds, plan and adapt appropriate assessment and instruction.

Brown, Sanford, & Lolich, 2010
Primary Considerations:

- Differences in developmental experiences form the main context for understanding assessment results
- Consistent with SLD definition and law
  - SLD cannot be due to primarily to cultural or linguistic differences
- Relevant to instruction
- Purpose of all evaluations is to intervene, not diagnosis—must “help” student

Ortiz, 2013
Secondary Considerations

- Practical and flexible
  - Can be conducted by English-speaking practitioners using current, popular test kits
- Comprehensive yet parsimonious
  - Initial testing conducted in English and native language testing may not be necessary
- Collaborative
  - Transdisciplinary approach includes educators, parents, community

Ortiz, 2013
ELL PSW Pre-Referral Data Checklist

ELL pre-referral packet (i.e. SST data augmented)
- Developmental & medical history (i.e., prenatal access to medical care, birth hx, illnesses, vaccinations, exposure to environmental toxins, accidents, documented health records)
- Academic history in primary language (if available)
- Parent report of student’s communication, behavior, and development compared to siblings & other family members
- Classroom, ELD, and intervention teachers’ observations
ELL PSW Pre-Referral Data Checklist

- Obtain information pertaining to student’s primary language, culture, and family immigration history
  - Critical Step – All data will need to be interpreted through this lens.
- Dialectical speech patterns
  - Pragmatic language, social mores
- Academic preparation, history, expectations
- Family hierarchy, communications, resources, and support systems
- Gender relations and expectations
- Geopolitical, religious, and class differences (understanding of war & refugee issues)

Bender, 2013
ELL PSW Pre-Referral
Data Checklist

- BICS acquisition (obtain info using observational checklist, second language acquisition chart, a conversational sample and observations, or other tools reflecting BICS devpt)

- CALP acquisition (obtain info using observational checklist, conversation sample & observations, or ELD proficiency tools reflecting CALP development).

- ELD testing data (Note: Language proficiency data needs to be interpreted in a guarded fashion and according to the parameters outlined within the tool’s examiner’s manual.

Bender, 2013
ELL PSW Pre-Referral Data Checklist

- Capacity to Learn (i.e., assessment of intellectual capacity using non-biased instruments and methods that are sensitive to linguistic and cultural factors)

- ELL/SPED Evaluation Rubric (Create a checklist that synthesizes evaluation data related to typical versus atypical developmental and/or learning patterns in relation to second language acquisition)

* Remember to offer translated documents to parents (i.e., parent rights and IEP paperwork); most SELPA’s have these available in multiple languages. Schedule interpreter if needed.

Bender, 2013
ELL PSW Pre-Referral Data Checklist

- Information pertaining to student’s communication skills in both L1 & L2 (should reflect communication skills across contexts, preferred and/or social language, etc.)

- Student work samples (in weak AND strong academic areas)

- Current academic performance (Note: Data should be interpreted in terms of second language acquisition expectations and can also be used as baseline data when using a curriculum-based assessment methodology.

- If available, academic data in L1

- Response to Intervention progress monitoring data

Bender, 2013
ELL PSW Pre-Referral
ELD Services

- ELD Services Clarified
  - Some people think that ELD services are a Tier 2 (sometimes a Tier 3 or 4) intervention – This is a MYTH!
  - ELD services are a core subject, like reading and math, for EL students that qualify.
  - For EL students who are found eligible for special education services, ELD services must continue.
  - This does not mean that they have two pull-outs. Collaborative models are most appropriate.

Brown, J.E. 2014
What RtI evidence do we need?

- Agreement with the concepts in the model.
- Prevention, early intervention, tiered resources, etc.
- Assessments that are validated with ELL’s.
- Interventions that are validated with ELL’s.
- A special education RtI eligibility model for ELL’s.
- An analysis related to these questions for ELL subgroups.
- Language subgroups (e.g. Spanish, Korean) related to levels of English Language proficiency and performance.

Vanderwood, 2010
Questions to Answer

- How specifically does language proficiency affect the ability of progress monitoring measures to achieve their purposes? (Vanderwood, 2010)
- How do we integrate culture into the decision making process? (Vanderwood, 2010)
  - Does acculturation play a role in an ELL’s academic development skills?
- How do we integrate native language knowledge into the process? (Vanderwood, 2010)
  - Paramount: daily specified time dedicated to the study of English Language Development.
Identifying Non-Responsiveness

- Development of valid methods of identifying non-responders is a recognized goal of early reading intervention research (Bender, 2013).
- One alternative to the performance-level-only and growth-rate only methods is a “dual-discrepancy” approach (Aldrich, 2010).
- This is where a student must be discrepant from their peers in both performance level and growth rate to be considered unresponsive (Bender, 2013).
Research Facts

- Few studies have been conducted with ELL’s, assumption cannot be made that what works for native speaking students works for ELL’s (Vanderwood & Nam, 2007).
- Further research needed to understand if responsiveness in Tier II predicts later reading success or if students return to being at-risk in other reading skills (Gutiérrez, 2011).
- Prior research has shown that some at-risk students who received intervention and improved were later found to be at-risk in other reading skills when assessed in the future (O’Connor, Harty, & Fulmer, 2005).
Anecdotal information such as observations, history, hypothesis statement checklists, and teacher report.

Considerations for evaluation of ELL students:

☐ Do chosen assessment instruments account for degree of cultural and/or linguistic demand?
☐ Has the student’s level of second language acquisition been obtained?
☐ Are errors in basic reading skills reflective of phonological or letter-sound correspondence differences between languages?

2. This list is not exhaustive. Additional assessments may supplement those listed here when consistent with domain of assessment.
Cultural and Linguistic Classification of Tests
Addressing Validity in Diagnosis and Interpretation

DEGREE OF LINGUISTIC DEMAND

DEGREE OF CULTURAL LOADING

LOW

MODERATE

HIGH

CHC BROAD/NARROW ABILITY CLASSIFICATIONS

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PATTERN OF EXPECTED PERFORMANCE OF CULTURALLY AND LINGUISTICALLY DIVERSE CHILDREN

DEGREE OF LINGUISTIC DEMAND

LOW

MODERATE

HIGH

DEGREE OF CULTURAL LOADING

LOW

PERFORMANCE

LEAST AFFECTED

INCREASING EFFECT OF LANGUAGE DIFFERENCE

MODERATE

INCREASING EFFECT OF CULTURAL DIFFERENCE

HIGH

PERFORMANCE

MOST AFFECTED

(COMBINED EFFECT OF CULTURE & LANGUAGE DIFFERENCES)

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## Culture-Language Test Classifications: WISC-IV

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<thead>
<tr>
<th>DEGREE OF LINGUISTIC DEMAND</th>
<th>LOW</th>
<th>MODERATE</th>
<th>HIGH</th>
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</table>
| LOW                         | MATRIX REASONING *(Gf-RG)*  
                             | Cancellation *(Gs-P,R9)*   | BLOCK DESIGN *(Gv-SR, Vz)*  
                             |                           | SYMBOL SEARCH *(Gs-P,R9)*   |                           | LETTER-NUMBER SEQUENCING *(Gsm-MW)* |
| MODERATE                    | ARITHMETIC *(Gq-A3)*  
                             | Picture Concepts *(Gc-K0, Gf-I)* |                           |                           |                           |                           |
| HIGH                        | Picture Completion *(Gc-K0, Gv-CF)* |                           |                           |                           |                           |                           |
|                             | INFORMATION *(Gc-K0)*  
                             | SIMILARITIES *(Gc-LD, VL)*  
                             | VOCABULARY *(Gc-VL, LD)*   
                             | COMPREHENSION *(Gc-K0, LS)*  
                             | Word Reasoning *(Gc-VL, Gf-I)* |                           |                           |

*These tests demonstrate mixed loadings on the two separate factors indicated.*
The C-LIM v2.0* is an automated Excel® program that provides culture-language test classifications, test-specific matrices, CHC classifications, and automates score conversion and graphing for the purposes of providing a framework for systematic evaluation of test score validity that can enhance fair and equitable interpretation.

The XBA C-LIM v2.0 is available only on the CD that accompanies the Essentials of Cross-Battery Assessment, 3rd Edition.
### Using the Culture-Language Interpretive Matrix

**XBA C-LIM v2.0 for Bateria III Woodcock-Munoz: Pruebas de Habilidades Cognitivas**

Name: **Rosalinda**  
Age: **10 years 6 month(s)**  
Grade: **5th**  

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<th>Degree of Linguistic Demand</th>
<th>Low</th>
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<td>Bateria III Integracion de Sonidos</td>
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<td>Bateria III Analisis-Sintesis</td>
<td>Bateria III Formacion de Conceptos</td>
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<td>Bateria III Atencion Auditiva</td>
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<td>Bateria III Rapidez en el Decision</td>
<td>Bateria III Memoria de Trabajo Auditivo</td>
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<td>Bateria III Reconocimiento de Dibujos</td>
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<td>Bateria III Relaciones Espaciales</td>
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<tr>
<td>Bateria III Palabras Incompletas</td>
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**Cell Average =**

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<tr>
<td><strong>Low</strong></td>
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<tr>
<td>Bateria III Cancelacion de Pares</td>
<td></td>
<td>Bateria III Memoria Para Palabras</td>
<td>Bateria III Fluidez de Recuperacion</td>
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<tr>
<td>Bateria III Planeamiento</td>
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**Cell Average =**

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<tbody>
<tr>
<td><strong>High</strong></td>
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<tr>
<td>Bateria III Pareo Visual</td>
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<td>Bateria III Memoria Diferida-Aprend VA</td>
<td>Bateria III Informacion General</td>
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<tr>
<td>Bateria III Aprendizaje Visual-Auditivo</td>
<td></td>
<td>Bateria III Comprension Verbal</td>
<td></td>
</tr>
</tbody>
</table>

**Cell Average =**

---

**T-Score to Standard Score Converter:**  

←-T-Score here = Standard Score here→  

←- Use/enter this score in the matrix.  

---

S. Ortiz, 2014
CONDITION A: INVALID SCORES, NO DEFICITS
General declining pattern, all scores within or above expected range.

Name: Sydney Trejo  Age: 9 years 8 month(s)  Grade: 4th

DIFFERENCE LEVEL FOR EVALUATION:
- Slightly Different
- Moderately Different
- Markedly Different

XBA C-LIM Graph for DAS-II: Primary Evaluation of Cultural and Linguistic Influences
CONDITION B: VALID SCORES, LIKELY DEFICITS
Generally declining pattern, one or more scores below expected range.

XBA C-LIM Graph for KABC-II: Primary Evaluation of Cultural and Linguistic Influences
When to use the XBA Scoring Software

- Use the C-LIM for all CLD evaluations that fall under the C-LIM degree of difference criteria including students who are not eligible for ESL services
- Use the X-BASS if you need to determine if a cluster is cohesive
- If a cluster is not cohesive, use the X-BASS to calculate a cross battery processing composite
- Use the X-BASS if you conducted cross battery assessment
- Use the X-BASS when (Full Scale, GAI, Gf-Gc, NVI or MPI) are below SS90
References and References

- References available upon request.

- Expert Contacts:
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  - Jim Hanson: jimhanson@pps.net
  - Jenny Jones: jjones@vcoe.org
  - Karen Apgar: apgar_k@4j.lane.edu
Resources and References

- **Websites:**
  - www.crossbattery.com
  - www.venturacountyselpa.com
  - http://www.pps.k12.or.us/schools/lincoln/1674.htm
  - http://www.schoolhouseeducationalservices.com/

- **Guides and Manuals:**
  - **Portland:**
  - **Ventura:**
  - **Eugene:**
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