Specific Learning Disability Eligibility Determination:
Using a Pattern of Strengths and Weaknesses (PSW) Model
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What is Pattern of Strengths and Weaknesses?

- The assessment of a student to determine whether he or she exhibits a pattern of strengths and weaknesses in performance, achievement, or both relative to age, grade-level standards, or intellectual development.
- A Pattern of Strengths and Weaknesses model provides a systematic method for looking at a wide range of cognitive processes.
- Schools may determine a pattern of strengths and weaknesses by evaluating specific areas of cognitive function, academic achievement, or both and comparing those results against each other or in contrast to other measures of student performance.
- PSW includes both a normative (comparison to peers) and ipsative (individual significance, compared to child's overall processing abilities) strengths and weaknesses.

Using PSW to Identify a Learning Disability

A learning disability is suspected if one or more weaknesses in the areas of academic achievement (basic reading, reading comprehension, reading fluency, math calculations, math reasoning, and written expression) exist with a related cognitive weakness. The cognitive weakness(es) must exist within an otherwise normal profile (a standard score of ≥85 in three or more cognitive domains).

Research-based PSW model: Aptitude-Achievement Model

- The most usable and best researched model
- Based on Cattell-Horn-Carroll (CHC) intelligence theory
- Practitioners are not limited to any one test or group of tests
- Documents low achievement in a specific area
- Identifies a deficit in a cognitive ability that is linked to the academic weakness
- Provides a method to determine that most cognitive abilities are average or above
- Useful for discriminating between cases of borderline intellectual functioning (and mild mental retardation) and SLD
- Discriminates between normally developing English Language Learners (ELL) students and ELL students with SLD

Which Assessment to Choose?

- When using CHC theory, practitioners usually choose the WJ-III or the KABC-II/KTEA-II for assessment purposes because these tests have the most extensive representation of CHC abilities.
- The DAS-II and CAS also have many advantages.
- The WISC-IV and the SB-5 must be supplemented with other tests to measure all CHC critical abilities for early reading and math achievement
We Have Different Areas of Cognitive "Brain" Skills that Help Us Learn
(Federal Way Public Schools, 2011)

Fluid Reasoning
- Your skills for solving problems
- How you discover patterns and find solutions

Short-term Memory
- How you hold information in working memory while you think and learn
  - All thinking occurs in working memory

Crystallized Intelligence/Comprehension-Knowledge
- What you know
- How you use language to talk with others about what you know
- How you listen and understand when others are sharing their knowledge with you

Long-term Memory
- How you store and later remember what you have learned

Visual Processing
- How you use your eyes for learning
- How you see and use visual patterns

Auditory Processing
- How you use your ears for learning
- Sound awareness skills, like rhyming, are important for learning how to read

Processing Speed
- How quickly you perform mental tasks

How Exactly Do You Use PSW?

PSW Assessment Steps:
1. Identify abilities of interest to the team based on hypothesized deficits
2. Select subtests that represent the broad domains
   - Subtests should represent different aspects of the domain (avoid redundancy)
   - Consider subtest reliability and validity
   - All tests should be normed around the same time
   - Supplement the core with subtests from different tests
   - Ideally, 2 subtests per process
3. Administer core and supplemental tests
4. Score each test according to the test manual
5. Convert all scores to standard scores (mean of 100, standard deviation of 15)
6. Analyze the data and determine PSW
   - Compare scores to normative sample
   - Compare scores within the child’s range of abilities
7. Link PSW to classroom performance and weaknesses in achievement areas

Additional Considerations:
- Misapplication of the PSW model: A strength or a weakness may be statistically significant, but not clinically meaningful. For example, if a student has a statistically significant weakness in visual-spatial thinking on the WJ-III COG, this weakness does not relate to early reading achievement and is not clinically meaningful.
- Teams must determine the relationship among scores and what the pattern means
- Teams must be fluent with their knowledge of child neuropsychology and statistics
- A review of developmental, family, medical, and school histories is important to make accurate decisions. For example, does a student with an "executive functioning" disorder have a learning disability or is it a manifestation of ADHD?
What Does the Law Say?

IDEA and WAC have nearly identical statements relating to determining the existence of a specific learning disability with regards to pattern of strengths and weaknesses (see blue highlights below). Both indicate that the pattern of strength and weaknesses model is a valid method for identifying a specific learning disability.

Case Law

- The case involved Courtney, a 4th grade student with dyslexia
- In approximately April 2006, Courtney's parent requested an evaluation for specific learning disability (SLD) using the Response to Intervention Model
- Hawaii provided the evaluation, but based on the Severe Discrepancy Model
- The DOE said Courtney’s test results did not show a severe discrepancy because her scores on standardized achievement tests were higher than her IQ score
- Courtney and her guardian argued the DOE had violated the applicable federal law, Individuals with Disabilities Education (IDEA), by relying solely on the Severe Discrepancy Model. They said IDEA regulations require the DOE to use the Response to Intervention Model under which a child can be found to have a specific learning disability if she makes insufficient progress after implementation of interventions that are matched to her academic, social-emotional, and behavioral needs, and her progress is frequently monitored to make decisions about changes in instruction or goals

OUTCOME: The court ruled that the Severe Discrepancy Model cannot be used as the sole basis for determining whether a child qualifies for SLD and established that Response to Intervention Model is the preferred methodology. Using a Pattern of Strengths and Weaknesses is an alternative method recommended by IDEA for determining SLD eligibility and is highly compatible for use with the Response to Intervention Model.
**Nondiscriminatory Assessment**

IDEA mandates that we conduct nondiscriminatory assessments when evaluating students.

**Comprehensive Assessment**
Assessing children using a PSW model follows best practices by requiring the use of comprehensive assessment. It emphasizes that the use of only standard scores can be faulty and does not provide a complete picture of a child's abilities.

A comprehensive evaluation may include:
- Developmental History
- School History
- Family History
- Medical History
- Parent Interview
- Teacher Interview
- Criterion-Referenced Measures (like CBM’s)
- Norm-Referenced Academic Measures
- Norm-Referenced Cognitive Measures
- Curriculum-Based or Grade-Level Assessments
- Anecdotal Information
- Rating Scales (like the BRIEF – measures executive functioning or the BASC-2)
- Observation Data
- Thoughtful consideration of exclusionary factors

**Assessing ELL Students**
The Aptitude-Achievement Model (CHC Model) Essentials of Cross-Battery Assessment-2 (EXBA-2) provides a promising framework for assessment and interpretation of evaluations of ELL students assessed in English using a Culture-Language Test Classifications (C-LTC). The C-LTC matrix looks at the following:
1) CHC abilities for each subtest
2) Degree of cultural loading
3) Degree of linguistic demand

The C-LTC helps practitioners consider these factors when determining an appropriate cognitive assessment to administer with a student.

The CHC model also includes the Culture-Language Interpretive Matrix (C-LIM) (see next page), to evaluate the relative influence of cultural and linguistic factors on the specific performance of a student. It helps educators establish if the performance of a student is a reflection of their actual ability or rather of cultural and linguistic difference. Patterns may form indicating an effect of cultural loading (scores decrease as they move down the cells), linguistic loading (scores decrease from left to right) or both (scores decrease from top left to bottom right).

Practitioners can use this information to determine if an ELL student's weakness is expected based on culture and/or linguistic loading, or if the pattern deviates from the expected pattern in a way that indicates a cognitive weakness.
Ethical Principles

I. Respecting the Dignity and Rights of All Persons

- Principle I.3. Fairness and Justice: Commitment to justice and fair treatment of all persons.

II. Professional Competence and Responsibility

- Principle II.1. Competence: Practice within the boundaries of competence
- Principle II.3. Responsible Assessment and Intervention Practices: Use scientific knowledge from psychology and education to help clients and others make informed choices, and accept responsibility for one’s work.

IV. Responsibility to Schools, Families, and Communities, the Profession, and Society

- Principle IV.2. Respect for Law and the Relationship of Law and Ethics: Respect the law and encourage ethical conduct.
- Principle IV.5. Contributing to the School Psychology Knowledge Base: Contribute to the school psychology knowledge base.

Advantages and Disadvantages

Advantages:

- Addresses the “psychological processing” component of the SLD definition that is not identified by RTI
- Identifying a processing deficit differentiates SLD and slow learning
- Identifying processing deficits provides direction for academic interventions
- Constructs are scientifically-based
- Provides information about cognitive abilities that are relevant to the identification of a learning disability
  - If we define SLD as a “disorder in one of the basic psychological processes,” shouldn’t we be assessing for specific cognitive deficits
- Helps teams meet the requirement for a “comprehensive” evaluation
- Allows for differential diagnosis
- Compatible to use with RTI; might guide more effective interventions than RTI alone
- PSW can determine whether failure to respond to RTI is due to a processing deficit, adding more support for LD placement
- Can explain what functions can be re-mediated versus what functions require accommodations
- Might provide more convincing information in court cases that end in litigation
- Larger focuses on cognitive interventions; an intervention that focuses on a cognitive weakness is typically more effective on improving academic outcomes than an academic intervention

Disadvantages:

- The WISC-IV and SB-5 cannot be used alone as cognitive assessment tools but as supplementary tools to measure all CHC critical abilities reading and math achievement
- Although some combined RTI/PSW models may reduce the number of students identified SLD by about one-third, some models of PSW might not. This might affect identification rates and district funding allocation
As mentioned, current comprehensive cognitive test batteries do not measure visual processing in a way that relates to reading. We might therefore under-identify students with orthographic dyslexia. More research is currently underway on visual processing, its relationship to achievement and instruction.

PSW requires expertise; it requires you to think critically about numerous variables that may not always be perfectly captured by criteria. Novices who begin using the system may increase Type 1 errors, and they might use information that is not clinically meaningful in order to justify eligibility and provide services.

PSW requires well-trained evaluators and IEP teams to implement with fidelity. This necessitates increased professional development and increased recruitment and retention of qualified personnel.
References


Federal Way Public Schools. (2011). We have 7 areas of cognitive "brain skills" that help us learn.


Ortiz, S. O. (2005). The culture-language test classifications (C-LTC) and culture-language interpretive matrix (C-LIM). St. John’s University.
