

# Collaborative Assessment within a Science of Reading Framework

**Identification and Intervention for EL and monolingual children**

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**This handout contains key slides from presentation.  
Full presentation slides will be made available**





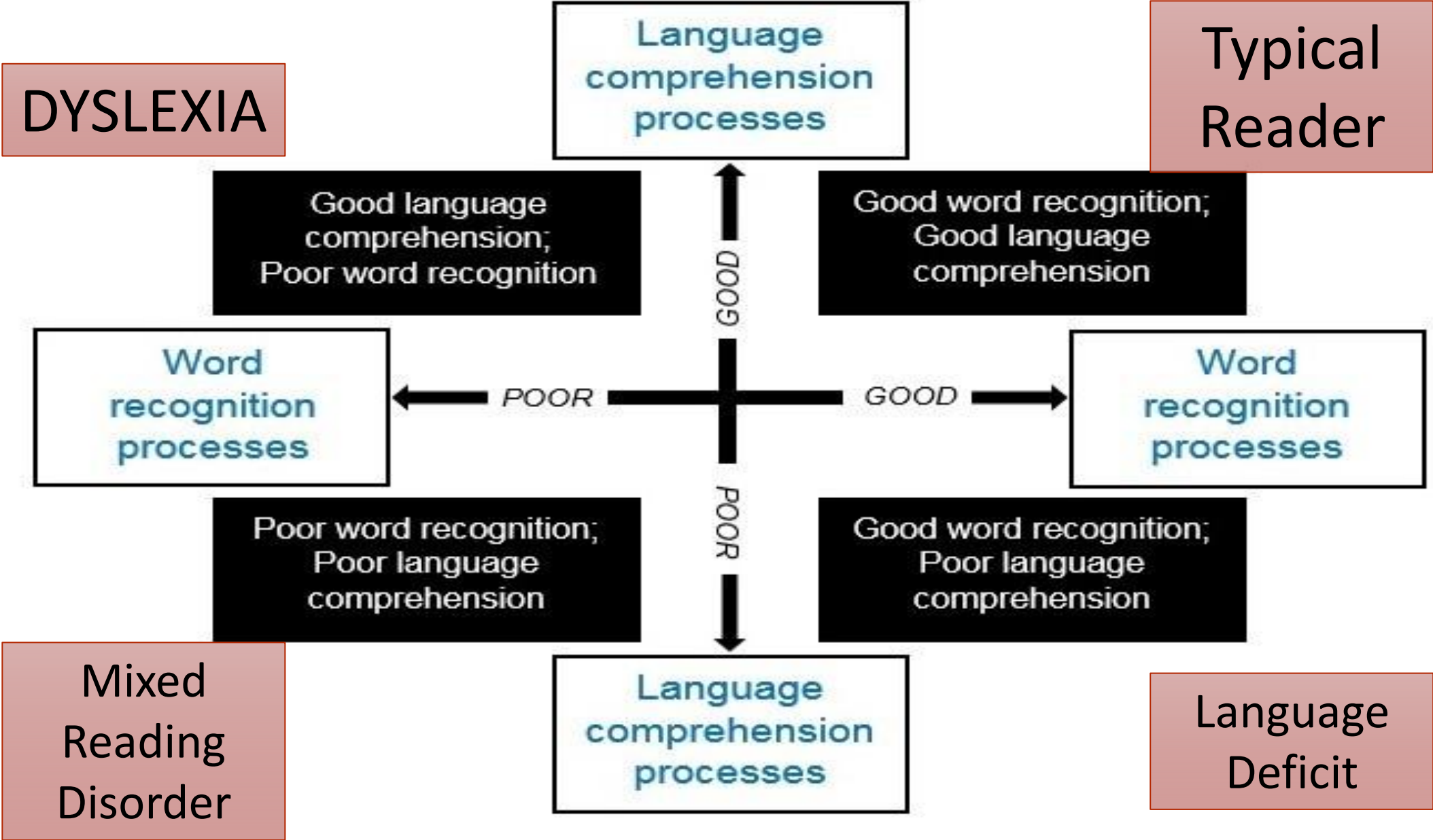
# SUMMARY OF RELATIONS BETWEEN CHC ABILITIES AND SPECIFIC AREAS OF ACADEMIC ACHIEVEMENT (BERNINGER, 2013; FLANAGAN AND COLLEAGUES, 2006, 2013; MCGREW & WENDLING, 2010; MCGREW ET AL., 2014; FLANAGAN, 2024)

## Summary of Relations Between Cognitive Abilities, Processes, and Specific Academic Skills

| CHC Ability | Reading                                                                                                                                                                                      | Math                                                                                                                                                                             | Writing                                                                                                                                                                                                           |
|-------------|----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|-------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| Gf          | Inductive and general sequential reasoning (RG) abilities, particularly verbal reasoning, play a moderate role in reading comprehension                                                      | Inductive (I) and general sequential reasoning (RG) abilities are consistently important at all ages                                                                             | Inductive (I) and general sequential reasoning abilities are related to basic writing skills primarily during the elementary school years (e.g., 6–13) and consistently related to written expression at all ages |
| Gc          | Language development (LD), lexical knowledge (VL), and listening ability (LS) are important at all ages; these abilities become increasingly important with age.                             | Language development (LD), lexical knowledge (VL), and listening abilities (LS) are important at all ages; these abilities become increasingly important with age                | Language development (LD), lexical knowledge (VL), and general information (KO) are important primarily after age 7; these abilities become increasingly important with age                                       |
| Gwm         | Memory span, particularly verbal short-term storage (Wa), is important for basic reading skills and working memory capacity (Wc) is important for reading comprehension                      | Memory span, particularly visual short-term storage (Wv), is important for basic math skills and working memory capacity (Wc) is important for higher-level math problem-solving | Memory span, particularly verbal short-term storage (Wa) is important for spelling and working memory capacity (Wc) is important for more complex writing (e.g., written expression)                              |
| Gv          | —————                                                                                                                                                                                        | Visualization (Vz) is related primarily to higher-level or advanced mathematics (e.g., geometry, calculus)                                                                       | —————                                                                                                                                                                                                             |
| Ga          | Phonetic coding (PC) or phonological awareness/processing is important during the elementary school years for the development of basic reading skills; Phonological memory is also important | —————                                                                                                                                                                            | Phonetic coding (PC) or phonological awareness/processing is important during the elementary school years for spelling and written expression (primarily before age 11).                                          |
| Gr          | Naming Facility (NA), or rapid automatic naming, and Word Fluency (FW) are important during the elementary school years for the development of basic reading skills                          | Naming Facility (NA) is important for basic math skills, primarily math fluency                                                                                                  | Naming Facility (NA) or rapid automatic naming is important for writing fluency                                                                                                                                   |
| Gl          | Associative memory (MA) and Meaningful Memory (MM) are important at select ages                                                                                                              | Associative Memory (MA) is important for storing math-related information                                                                                                        | —————                                                                                                                                                                                                             |
| Gs          | Perceptual speed (P) is important during all school years, particularly the elementary school years                                                                                          | Perceptual speed (P) is important during all school years, particularly the elementary school years                                                                              | Perceptual speed (P) is important during all school years for basic writing and related to all ages for written expression                                                                                        |



The Simple View of Reading

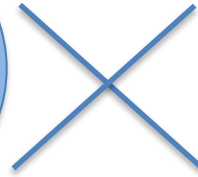


# Simple View of Reading

## Decoding

(Word-Level Reading)

*Ability to transform  
print into spoken  
language*



## Language

## Comprehension

*Ability to understand  
spoken language*

Decoding X Language Comprehension =  
Reading Comprehension

D X LC = Reading Comprehension

# The Scarborough Rope Model

## Language Comprehension



Background Knowledge

Vocabulary

Language Structures

Verbal Reasoning

Literacy Knowledge

## Word Recognition



Sight Recognition

Decoding

Phonological Awareness

## Reading Comprehension

### Skilled Reading:

Fluent execution and coordination of word recognition and text comprehension.

increasingly strategic

increasingly automatic



Source:

<https://dyslexiaida.org/scarboroughs-reading-rope-a-groundbreaking-infographic/>



# Reading Rope for Multilingual Learners

Strands of Oral Language Development Support  
Literacy Development

**Oral Language Development**

Second Language Acquisition

Metalinguistic Awareness

Linguistic Scaffolds

## Language Comprehension

Background Knowledge  
facts, concepts

Vocabulary  
breadth, precision, links

Language Structures  
syntax, semantics

Verbal Reasoning  
inference, metaphor

Literacy Knowledge  
print concepts, genres

oral language development throughout

Language proficiency level

Time

## Word Recognition

Phonological Awareness  
syllables, phonemes

Alphabetic Principle  
spelling, letter-sound  
correspondence

Sight Recognition  
familiar words

oral language development throughout

increasingly strategic

increasingly automatic

## Skilled Reading

Fluent execution and  
coordination of language  
comprehension and word  
recognition

# WHAT

## Phonological Awareness

- 1 Phonological awareness is the ability to notice the sound structure of spoken words.
- 2 Phonemic awareness is the ability to identify, isolate and manipulate language at the individual sound level. It is a part of phonological awareness.
- 3 Basic phonological awareness skills include phoneme blending and segmentation and are generally mastered by most students by the end of the first grade.
- 4 Advanced phonological awareness skills involve manipulating phonemes which include deleting, substituting, or reversing phonemes within words.

## Phonics

- 10 Phonics is a system for approaching reading that focuses on the relationship between letters and sounds.
- 11 The teaching has to move from letter/sound correspondences to graphemes, syllables and morphemes.
- 12 Orthographic mapping is the ability to quickly and efficiently add words to your sight vocabulary.
- 13 Sight vocabulary is all the words you instantly recognize.

## Fluency

- 17 Fluency is the ability to read a text quickly, accurately, and with proper expression.
- 18 Fluency is determined by the size of your sight vocabulary.
- 19 If a student is good at orthographic mapping, reading practice is helpful to increase fluency.
- 20 If a student is not good at orthographic mapping, reading practice does not help to increase fluency.

## Vocabulary

- 25 Vocabulary is the knowledge of words and word meanings.
- 26 Connecting meaning to spelling patterns of words can be critical to expanding a student's vocabulary.
- 27 Morphology is the study of segmenting words into prefixes, suffixes, roots, or bases and the origins of words.
- 28 Vocabulary knowledge is knowledge; the knowledge of a word not only implies a definition, but also implies how that word fits into the world.



# https://readinguniverse.org/taxonomy

## THE SIMPLE VIEW OF READING

**Word Recognition x Language Comprehension = Reading Comprehension**

### ASSESSMENT

The process of measuring students' progress and providing information to help guide instruction

[Learn More](#) ▶

### WORD RECOGNITION

The ability to see a word and know how to pronounce it without consciously thinking about it

[Learn More](#) ▶

#### PHONOLOGICAL AWARENESS

A group of skills that enable you to recognize and manipulate parts of spoken words

[Learn More](#) ▶

Phonics and Sound-Letter Correspondence

Pronunciation

Syllables

Onset-Rime

Phonemic Awareness

#### PHONICS

A method for teaching children the relationship between spoken sounds and written letters so they can learn to decode and encode

[Learn More](#) ▶

Common, Irregular Words

Beginning Phonics Patterns

Advanced Phonics Patterns

Suffixes

### LANGUAGE COMPREHENSION

The ability to understand the meaning of spoken words

[Learn More](#) ▶

Background Knowledge

Oral Language Structures

Vocabulary

Morphology

Reasoning

Literacy Knowledge

### READING COMPREHENSION

The ability to understand the meaning of printed text

[Learn More](#) ▶

Text Considerations

Strategies and Activities

Reader's Skill and Knowledge

Classroom Environment

### FLUENCY

The ability to read accurately with automaticity and expression

[Learn More](#) ▶

Accuracy, Then Automaticity

Fluency with Expression

### WRITING

### STRUCTURED LITERACY

# What is STRUCTURED LITERACY? A primer by Nancy Young (nancyyoung.ca)

A structured approach to teaching the structure of written text.

**Explicit, systematic & cumulative. Needs-based instruction.**

Encompasses

Phonology

Awareness of the structures within spoken language underlies reading and spelling mastery, especially the individual speech sounds (phonemes) within words. Explicit instruction/practice using letters (graphemes) strengthens **phonemic awareness**, from identification and segmentation to the higher-level skill of phoneme manipulation.

Orthography

Reading (decoding) and spelling (encoding) require knowledge of **the written code**. Written symbols (graphemes) which represent the phonemes in spoken words are taught in a sequence (read-aloud materials aligned as needed), addressing features such as allowable grapheme positions, word origin, and the rationale for certain spellings.

Morphology

As well as learning about phonemes and graphemes, learning about **the units of meaning – morphemes – in words** underlies reading/spelling mastery. This includes understanding words can be made up of just one or combined units of meaning (e.g. adding one or more affixes to a free or bound base), possibly resulting in changed grapheme pronunciation.

Syntax

Reading and writing proficiently requires knowing that words can be arranged in various ways. Instruction addresses **parts of speech** (e.g. verb, noun, preposition), how written words are organized into **sentences and paragraphs** in different **forms of text**, and the role of **punctuation**. Writing is a vital part of reading instruction, building from the foundational stages.

Semantics

Instruction focuses on the **many different meanings that words can represent** in various forms of text. As reading and writing skills grow, vocabulary and background knowledge are continually built up. Comprehension (both spoken and written language) is steadily developed and strengthened. A **rich language learning environment** grounds all learning.

PHONICS

Components taught as simultaneously as possible

Sources:

Wolf (2007), Spear-Swerling (2018), Brady (2020).

Links to these resources and additional supporting resources for educators and parents can be found at [www.nancyyoung.ca](http://www.nancyyoung.ca)



# Science of Reading



# Balanced Literacy

Belief that the code-based nature of reading needs to be explicitly unpacked for the reading novice, so that we are not leaving reading to chance.

Teaching decoding as a skill

Bottom up approach, starting with phonemes, and moving to graphemes to create whole words before moving to meaning.

Diagnostic assessments (PAST, decoding assessments, etc) given to determine skill needs

Using assessment to drive instruction

Sound wall as a spelling help with all 44 sounds represented

Small groups based on skill deficits

Teaching phonemic awareness to the advanced level to automaticity

Teaching decoding using phonemic awareness, letter-sound proficiency, syllable types, and syllable division rules

Systematic and explicit teaching of phonics

Teaching phonics with an explicit scope and sequence from simple to more complex with spiraling review

Practice taught skills using decodable texts

Decodable texts have a high percentage of words that have been taught in phonics

Increasing fluency by working on automaticity of the sub-skills of reading

High frequency word instruction that uses analysis of the sounds rather than memorization

Using an ABC chart for letter ID

Complete connections between letters seen in the written forms of words and phonemes detected in their pronunciations for orthographic mapping to take place so students can move from word identification (blending/sounding out) to instant word recognition (immediately recognized in 1-4 exposures).

Teaching spelling with explicit processing of letter order and identity (linking graphemes to phonemes detected in pronunciations).

Belief that reading is a meaning-based activity that is best acquired through immersion.

Teaching phonics as children make errors

Top down approach, starting with whole words and what would make sense. This approach begins with sight words and cueing instead of individual sounds and letters.

DRA assessment given to determine a reading level

Using a leveled text to drive instruction

Word wall as a tool for spelling focusing on the 26 letters

Small groups based on reading level

Teaching phonological awareness at a basic level, not recognizing phonemic awareness proficiency as a necessary skill

Teaching decoding using 3 cueing system

Teaching enough phonics to read one text

Teaching with no pre-determined scope and sequence

Reading practice with leveled texts which provide insufficient practice in decoding.

Leveled texts are not decodable since they have a high percentage of words with phonics skills that have not been taught

Attempting to build fluency with repeated reading.

High frequency word instruction using visual methods such as flash cards

Using an ABC chart for letter ID and sounds the entire year of kindergarten

Orthographic mapping is not addressed

Teaching spelling as if words are remembered by sight - writing the word over and over; rainbow spelling, flashcards for spelling words.



# The Ladder of Reading & Writing



Art by Dean Stanton

Learning to read seems effortless;  
challenging content likely needed (5-10%\*)



Learning to read is relatively easy with broad  
instruction; explicit instruction for spelling  
& writing likely needed (35%\*)



Learning to read/spell/write proficiently  
requires code-based, systematic, & explicit  
instruction (40-45%\*)



Learning to read/spell/write requires code-based,  
systematic, explicit, intensive instruction  
& frequent repetition (10-15%\*)

Extended learning &  
enrichment likely  
essential\*\*

Facets of  
a structured  
literacy  
approach  
likely valuable\*\*

A structured  
literacy  
approach  
likely essential\*\*

Data informs instruction & practice: Differentiated content & process\*\*

Linguistic processes, executive functions, psychological aspects & environmental  
circumstances affect learning & vary within person & group\*\*

**Rich Oral Language  
Program**

**Structured Synthetic  
Phonics**

**Emphasis on Phonological  
& Phonemic Awareness**

**Decodable Reading  
Books**

**Emphasize Blending to  
Read**

**Emphasize segmenting to  
spell**

\* Percentages estimated based  
on available evidence

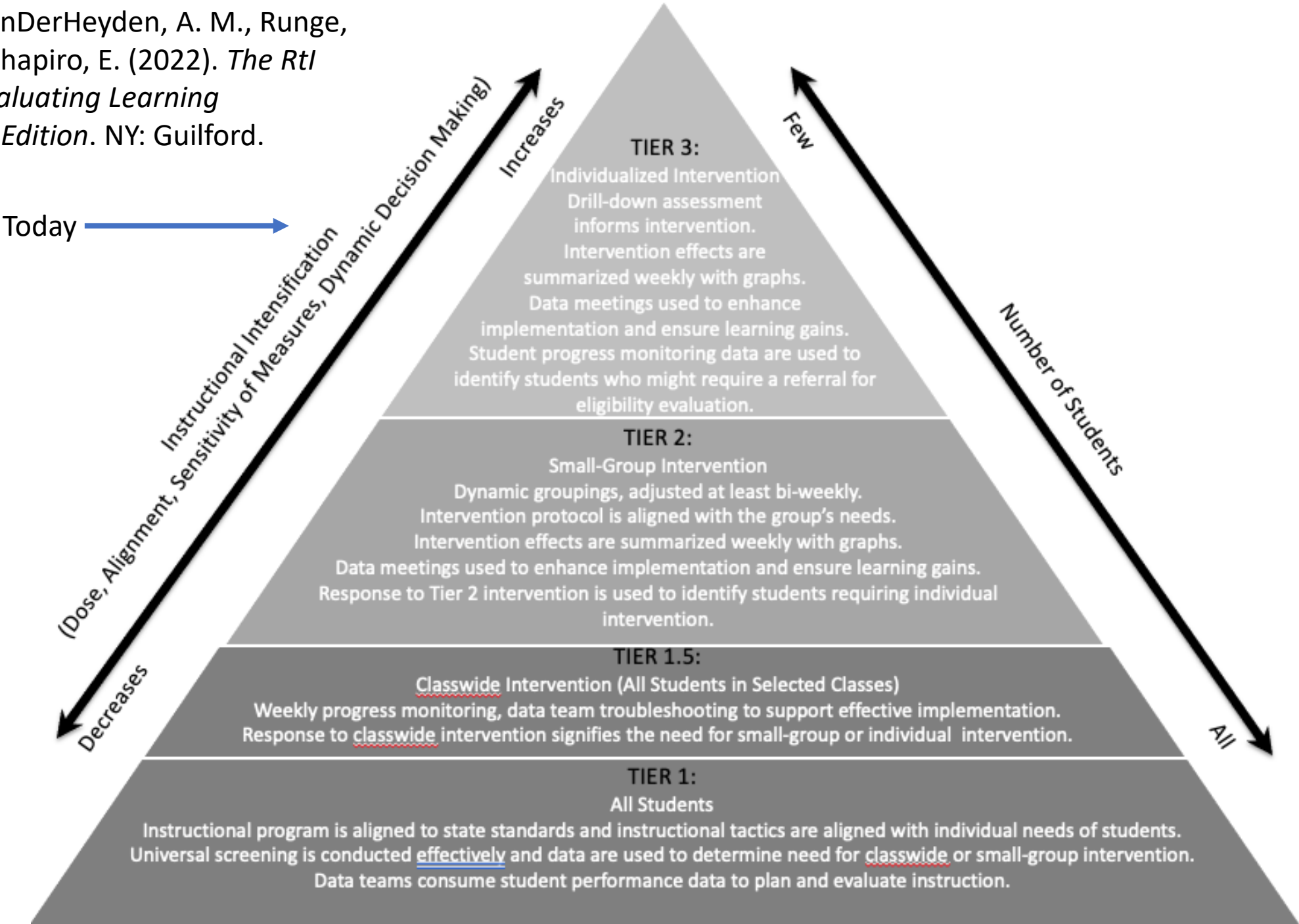
\*\* Terms defined and references at  
[www.nancyyoung.ca](http://www.nancyyoung.ca)

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Nancy Young  
B.A., M.Ed.  
Reading  
Spelling  
Writing

<https://fivefromfive.com.au/phonics-and-at-risk-learners/#>

Kovaleski, J., VanDerHeyden, A. M., Runge, T., Zirkel, P., & Shapiro, E. (2022). *The RtI Approach to Evaluating Learning Disabilities, 2<sup>nd</sup> Edition*. NY: Guilford.



## What's Different Across Tiers? A Scaffolding Example

| Tier 1                                                                 | Tier 2                                                                                                                                                                                                                                                             | Tier 3                                                                                                                                                                                                                                                                                                                                                                                                                                              |
|------------------------------------------------------------------------|--------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|-----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| <p>I do</p><br><p>We do</p> <p>We do</p> <p>We do</p><br><p>You do</p> | <p>I do</p> <p>I do</p><br><p>We do (with the teacher)</p> <p>We do (with the teacher)</p> <p>We do (with the teacher)</p> <p>We do (student pairs)</p> <p>We do (student pairs)</p><br><p>You do (with peer feedback)</p> <p>You do (with peer)</p> <p>You do</p> | <p>I do</p> <p>I do</p> <p>I do</p><br><p>We do (with the teacher)</p> <p>We do (with the teacher)</p> <p>We do (with the teacher)</p> <p>We do (with the teacher)</p> <p>We do (with the teacher)</p> <p>We do (with the teacher)</p> <p>We do (student pairs)</p> <p>We do (student pairs)</p> <p>We do (student pairs)</p> <p>We do</p> <p>We do</p> <p>We do</p><br><p>You do (with teacher feedback)</p> <p>You do (with teacher feedback)</p> |

Jess Surles: Reading Instruction and Supplemental Interventions to Support Equitable Literacy: <https://www.youtube.com/watch?v=vX8l-qJZcul>



**POOR COMPREHENSION?**

Go back to fluency.

**POOR FLUENCY?**

Go back to word recognition.

**POOR WORD RECOGNITION?**

Go back to phonics & decoding.

**POOR PHONICS & DECODING?**

Go back to phonemic awareness.

**#FROTHINONPHONICS**

## CURRICULUM BASED MEASURES OF READING SKILLS – KINDERGARTEN

|                             |                                                                                                                                 |                                                                                                                      |
|-----------------------------|---------------------------------------------------------------------------------------------------------------------------------|----------------------------------------------------------------------------------------------------------------------|
| PHONOLOGICAL AWARENESS      | DIBELS Initial Sound Fluency<br>DIBELS First Sound Fluency<br>DIBELS Phoneme Segmentation Fluency<br>EasyCBM Phoneme Segmenting | Aimsweb Phoneme Segmentation Fluency<br>Pre-Decoding Skills Survey<br>Phonological Awareness Skills Screener         |
| LETTER KNOWLEDGE            | DIBELS Letter Naming Fluency<br>EasyCBM Letter Names<br>EasyCBM Letter Sounds<br>Aimsweb Letter Naming Fluency                  | Aimsweb Letter Sound Fluency<br>Phonics and Word Reading Survey<br>CORE Phonics Survey<br>Pre-Decoding Skills Survey |
| DECODING / WORD RECOGNITION | Aimsweb Nonsense Word Fluency<br>Phonics and Word Reading Survey<br>CORE Phonics Survey                                         | DIBELS Nonsense Word Fluency<br>San Diego Quick Assessment<br>Dolch Word List Fluency                                |
| VOCABULARY                  | DIBELS Word Use Fluency                                                                                                         |                                                                                                                      |

## CURRICULUM BASED MEASURES OF READING SKILLS – FIRST GRADE

|                             |                                                                                                                         |                                                                                                                      |
|-----------------------------|-------------------------------------------------------------------------------------------------------------------------|----------------------------------------------------------------------------------------------------------------------|
| PHONOLOGICAL AWARENESS      | EasyCBM Phoneme Segmenting<br>Aimsweb Phoneme Segmentation Fluency<br>CORE Phonics Survey                               | Pre-Decoding Skills Survey<br>Phonological Awareness Skills Screener                                                 |
| LETTER KNOWLEDGE            | EasyCBM Letter Sounds<br>DIBELS Letter Naming Fluency<br>EasyCBM Letter Names<br>Aimsweb Letter Naming Fluency          | Aimsweb Letter Sound Fluency<br>Phonics and Word Reading Survey<br>CORE Phonics Survey<br>Pre-Decoding Skills Survey |
| DECODING / WORD RECOGNITION | Aimsweb Nonsense Word Fluency<br>DIBELS Nonsense Word Fluency<br>Phonics and Word Reading Survey<br>CORE Phonics Survey | San Diego Quick Assessment<br>Dolch Word List Fluency<br>Diagnostic Decoding Survey<br>EasyCBM Word Reading Fluency  |
| READING FLUENCY             | Aimsweb Oral Reading Fluency<br>EasyCBM Passage Reading Fluency                                                         | DIBELS Oral Reading Fluency                                                                                          |
| VOCABULARY                  | DIBELS Word Use Fluency                                                                                                 |                                                                                                                      |
| READING COMPREHENSION       | DIBELS Retell Fluency                                                                                                   | Aimsweb Maze CBM                                                                                                     |

# REDUNDANCY

| WJ/WESCHLER         | TAPS                      | Time to Administer |
|---------------------|---------------------------|--------------------|
| Sound Blending      | Phonological Blending     | 10 min.            |
| Auditory Attention  | Word Discrimination       | 10 min.            |
| Numbers Reversed    | Number Memory Reversed    | 5 min.             |
| Memory for Words    | Word Memory               | 5 min.             |
| Sound Awareness     | Phonological Segmentation | 10 min.            |
| Sentence Repetition | Sentence Memory           | 5 min.             |
|                     | Auditory Comprehension    |                    |
|                     | Auditory Reasoning        |                    |
| Digit Span          | Numbers Forward           | 5 min.             |



| Cluster                                                                        | Test Battery | Subtest Name           | Standard Score | Confidence Interval (68%) | Percentile | Classification |
|--------------------------------------------------------------------------------|--------------|------------------------|----------------|---------------------------|------------|----------------|
| Background Knowledge (Gc)                                                      |              |                        | 109            | 101 to 111                | 65         | Average Range  |
| Breadth and depth of acquired cultural knowledge and its effective application | WISC V       | Similarities           | 110            | 103 to 117                | 75         | High Average   |
|                                                                                | WISC V       | Vocabulary             | 110            | 103 to 117                | 75         | High Average   |
|                                                                                | WJ-IV        | General Information    | 98             | 91 to 105                 | 35         | Average Range  |
|                                                                                | CELF-5       | Word Classes           | 110            | 103 to 117                | 75         | High Average   |
|                                                                                | CELF-5       | Semantic Relationships | 115            | 108 to 122                | 84         | High Average   |

<https://www.schoolneuropsych.com/snwtests.php>

## Select a Test

Tests of Dyslexia – Screener

× ▾

Test Abbreviation

TOD-S

Age Range

5 - 89

Publisher

WPS

Description

Provides an efficient individual or group-administered screening measure to identify individuals ages 5 years, 0 months to 89 years, 11 months or in (grades Kindergarten through 12th who are at risk for reading difficulty.

| Subtest/Composite        | Broad Classification                                                  | 2nd Order Classification   | 3rd Order Classification                     | Primary CHC Classification | Secondary CHC Classification |
|--------------------------|-----------------------------------------------------------------------|----------------------------|----------------------------------------------|----------------------------|------------------------------|
| Question Reading Fluency | Facilitators/Inhibitors: Speed, Fluency, and Efficiency of Processing | Acquired Knowledge Fluency | Reading Fluency: Rapid Phonological Decoding | Grw:RS                     | N/A                          |
| Word Reading Fluency     | Facilitators/Inhibitors: Speed, Fluency, and Efficiency of Processing | Acquired Knowledge Fluency | Reading Fluency: Rapid Phonological Decoding | Grw:RS                     | N/A                          |
| Picture Vocabulary       | Acquired Knowledge: Language Abilities                                | Oral Expression            | Vocabulary Knowledge and Oral Expression     | Gc:VL                      | N/A                          |
| Dyslexia Risk Index      | Acquired Knowledge: Reading Achievement                               | Reading Achievement        | Reading Summary Indices                      | Grw:RD                     | N/A                          |

# Culture-Language Test Classifications - Reference

Conceptualization by D. P. Flanagan, S. O. Ortiz, & V. C. Alfonso; Programming by S. O. Ortiz and A. M. Dynda.

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## DEGREE OF LINGUISTIC DEMAND

LOW

MODERATE

HIGH

### 1. LOW LANGUAGE - LOW CULTURE (Tier 1)

ASA Tonal Discrimination (Ga:U1,U9)  
 ASA Tonal Patterning (Ga:US,UM;Gsm:MS)  
 Bateria III COG Atencion Auditiva (Ga:UR)  
 Bateria III COG Integracion de Sonidos (Ga:PC)  
 Bateria III COG Palabras Incompletas (Ga:PC)  
 Bateria III COG Reconocimiento de Dibujos (Gv:MV)  
 Beery VMI Test of Visual Perception (Gv:Vz)  
 Beery VMI Test of Visual-Motor Integration (Gv:Vz;Gp:P1)  
 CAS2 Figure Memory (Gv:MV,CF)  
 CAS2 Matrices (Gf:I)  
 CAS2 Number Detection (Gs:P)  
 ChAMP Objects (Gv:MV)  
 ChAMP Objects Delayed (Gv:MV)  
 CTMT Trial 1 (Gs:R9)  
 CTMT Trial 2 (Gs:P)  
 CTMT Trial 3 (Gs:P)  
 CTONI-2 Geometric Analogies (Gf:I)  
 CTONI-2 Geometric Sequences (Gf:RG)  
 DAS-II Copying (Gv:Vz)  
 DAS-II Matching Letter-Like Forms (Gv:Vz)  
 DAS-II Matrices (Gf:I)  
 DAS-II Pattern Construction (Gv:Vz)  
 DAS-II Recall of Designs (Gv:MV)  
 DAS-II Sequential & Quantitative Reasoning (Gf:RQ)

### 2. MOD LANGUAGE - LOW CULTURE (Tier 2)

ASA Blending (Ga:PC)  
 ASA Mimicry (Gsm:MS)  
 ASA Rhyming (Ga:US,UR)  
 Bateria III COG Analisis-Sintesis (Gf:RG)  
 Bateria III COG Rapidez en Decision (Gs:P)  
 Bateria III COG Relaciones Espaciales (Gv:Vz)  
 CAS2 Planned Codes (Gs:R9)  
 CAS2 Planned Number Matching (Gs:P)  
 CAS2 Visual Digit Span (Gsm:MS)  
 CELF-4 Number Repetition-Backward (Gsm:MW)  
 CTMT Trial 5 (Gs:P;Gsm:MW)  
 CTOPP-2 Memory for Digits (Gsm:MS)  
 CTOPP-2 Sound Matching (Ga:PC)  
 DAS-II Recall of Digits-Backward (Gsm:MW)  
 DAS-II Speed of Information Processing (Gs:P)  
 DTVP-3 Form Constancy (Gv:Vz,CF)  
 FAM Spatial Memory (Gv:MV)  
 KABC-II Block Counting (Gv:Vz)  
 KABC-II Number Recall (Gsm:MS)  
 KABC-II Rebus (Glr:MA)  
 KABC-II Rebus Delayed (Glr:MA)  
 KBNA Auditory Signal Detection (Ga:US)  
 KBNA Spatial Location (Gv:MV)  
 MEVPT-3 Motor-Free Visual Perception Test (Gv:Vz;Gsm:MW)

### 3. HIGH LANGUAGE - LOW CULTURE (Tier 3)

Bateria III COG Formacion de Conceptos (Gf:I)  
 Bateria III COG Memoria de Trabajo Auditivo (Gsm:MW)  
 CAS2 Verbal-Spatial Relations (Gsm:MW;Gc:LS)  
 CELF-4 Familiar Sequences (Gsm:MS,MW)  
 CELF-4 Number Repetition-Forward (Gsm:MS)  
 CTOPP-2 Rapid Digit Naming (Glr:NA)  
 DAS-II Recall of Digits-Forward (Gsm:MS)  
 D-KEFS Design Fluency Test: Empty Dots Only (Glr:FF)  
 D-KEFS Design Fluency Test: Filled Dots (Glr:FF)  
 D-KEFS Design Fluency Test: Switching (Glr:FF)  
 FAM Numeric Capacity (Gsm:MS)  
 KBNA Praxis (Gc:K0;Gp:P1)  
 NAB Digits Forward (Gsm:MS)  
 SB5 Nonverbal Working Memory (Gsm:MS,MW)  
 SCAN-3:A Filtered Words (Ga:PC)  
 SCAN-3:C Filtered Words (Ga:PC)  
 TAPS-3 Number Memory Forward (Gsm:MS)  
 TOMAL-2 Digits Forward (Gsm:MS)  
 TOMAL-2 Letters Forward (Gsm:MS)  
 TOMAL-2 Memory for Stories (Glr:MM)  
 TOMAL-2 Memory for Stories-Delayed (Glr:MM)  
 WAIS-IV Digit Span (Gsm:MS,MW)  
 WAIS-IV Letter-Number Sequencing (Gsm:MW)  
 WISC-IV Digit Span (Gsm:MS,MW)

C-LIM Analyzer

C-LIM Notes

C-LTC Reference

C-LIM Statements

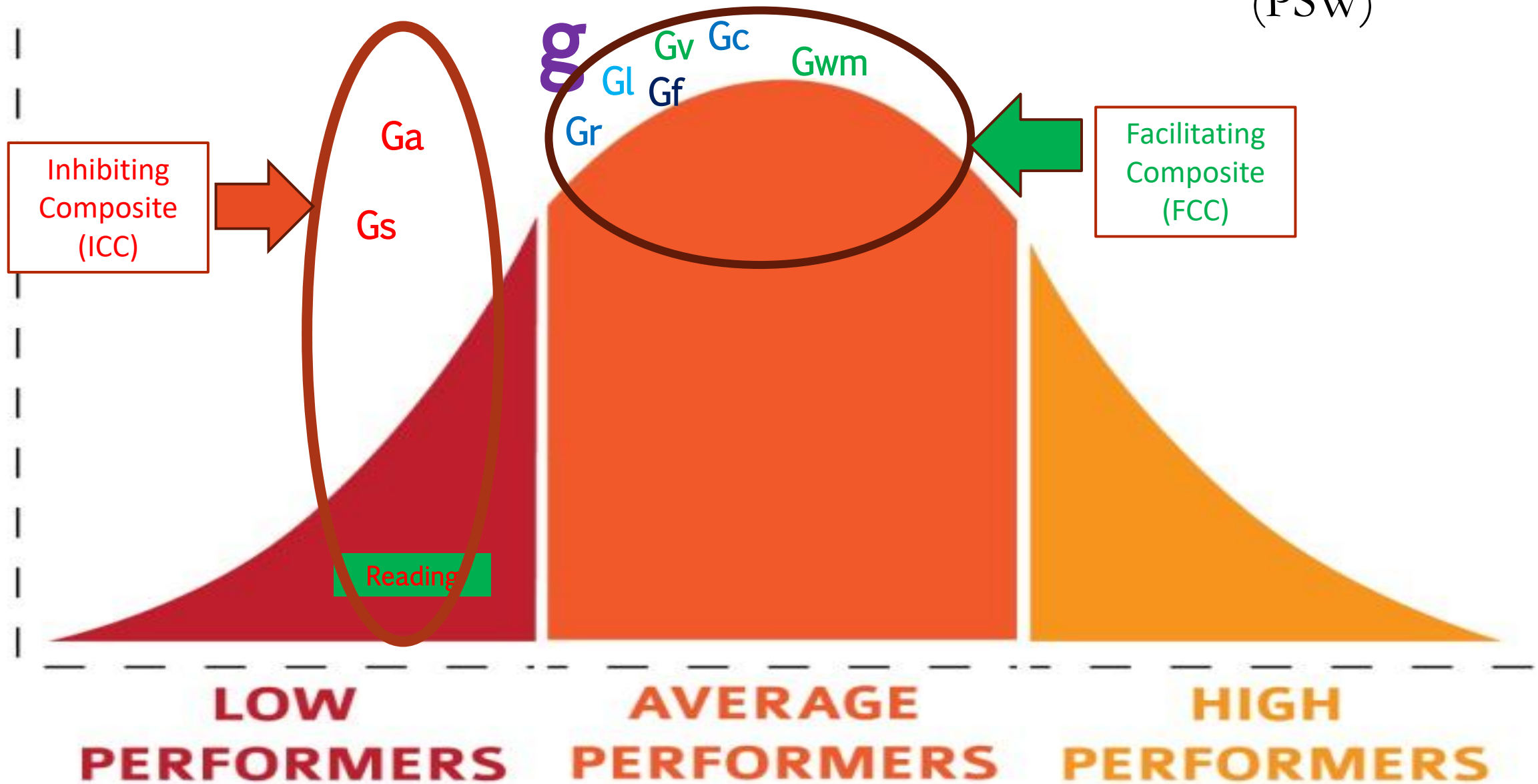


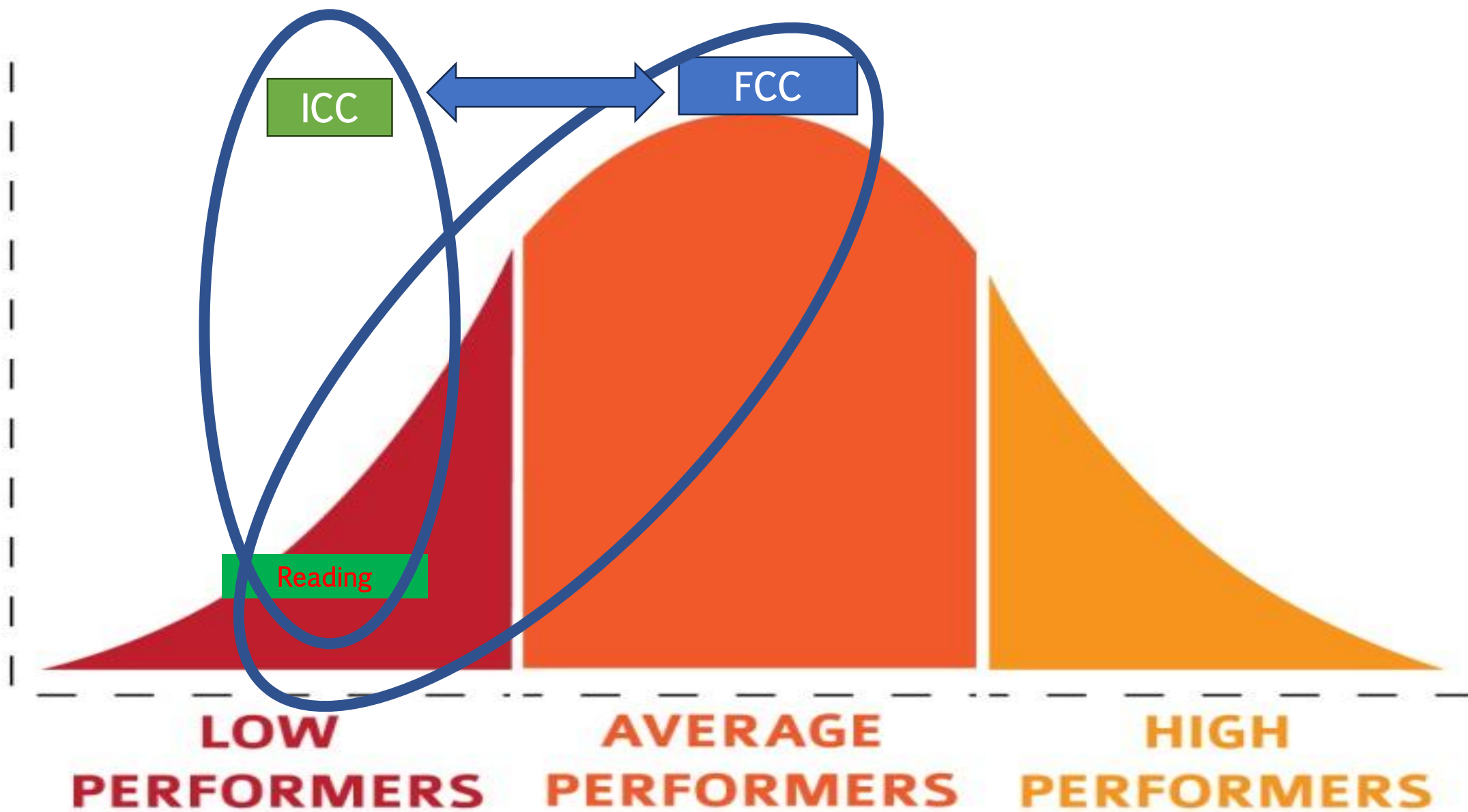
| AAD                                                                                                     | RtI                                                                                                                                                                      | PSW                                                                                                                                                                              |
|---------------------------------------------------------------------------------------------------------|--------------------------------------------------------------------------------------------------------------------------------------------------------------------------|----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| Requires a <b>discrepancy</b> between ability and achievement                                           | Requires <b>discrepancies</b> in rate and level of learning                                                                                                              | Requires <b>discrepancies</b> between cognitive strengths and cognitive and academic weaknesses                                                                                  |
| <b>Does not clarify</b> the reason for academic failure despite a consideration of exclusionary factors | <b>Does not clarify</b> the reason for academic failure despite a consideration of exclusionary factors, most notably inadequate instruction and intellectual disability | <b>Clarifies</b> the reason for academic failure as part of a comprehensive evaluation that includes evaluation of exclusionary factors                                          |
| Unexpected underachievement <b>relative to overall cognitive ability</b> (e.g., FSIQ)                   | Unexpected underachievement <b>relative to evidence-based instruction and intervention</b> (e.g., Tiers 1 and 2)                                                         | Unexpected underachievement <b>relative to the individual's cognitive capabilities (strengths)</b>                                                                               |
| Weaknesses/deficits <b>within the individual (primary)</b>                                              | Weaknesses/deficits <b>within the environment (primary)</b>                                                                                                              | Weaknesses/deficits <b>within the individual (primary) and the environment (contributory)</b>                                                                                    |
| Link to intervention <b>not apparent</b>                                                                | Link to intervention <b>based on academic skill deficits only</b> ; Limited to no new data to inform intervention after failure to respond                               | Link to intervention <b>based on academic skill deficits as well as knowledge of how cognitive deficits manifest for the individual in real-world settings</b> (e.g., classroom) |
| <b>Insufficient</b> information to individualize instruction and intervention                           | <b>Insufficient</b> information to individualize instruction and intervention beyond Tier 2 and/or Tier 3                                                                | <b>Sufficient</b> information to individualize instruction and intervention (particularly when combined with RtI/MTSS)                                                           |
| <b>Diagnostic errors</b> (false positives and false negatives) are inevitable                           | <b>Diagnostic errors</b> (false positives and false negatives) are inevitable                                                                                            | <b>Diagnostic errors</b> (false positives and false negatives) are inevitable                                                                                                    |



# PATTERN OF STRENGTHS AND WEAKNESSES

(PSW)





| ABILITIES AND PROCESSES RELATED TO SLD AREA: <b>BRS</b>                         | WISC-V SUBTEST                                                                                                                                                                                           | DEGREE OF RELATIONSHIP BASED ON LITERATURE REVIEW | EXAMPLE OF SUPPLEMENTAL SUBTESTS VIA XBA IF NECESSARY                                                          | COMMENTS                                                                                                                                                                                                                                |
|---------------------------------------------------------------------------------|----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|---------------------------------------------------|----------------------------------------------------------------------------------------------------------------|-----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| <b>Gc:VL</b><br>(Lexical Knowledge)                                             | Similarities Vocabulary                                                                                                 | Moderate                                          | CELF-5<br>Word Classes<br>Word Definitions                                                                     | Similarities may also involve Gf:I<br>CELF-5 is statistically linked to the WISC-V and therefore should be an initial supplemental battery                                                                                              |
| <b>Gc:K0</b><br>(General Information)                                           | Comprehension Information                                                                                               | Moderate                                          | WJ IV COG<br>General Information                                                                               | In the majority of cases, it will not be necessary to go out of battery for additional K0 subtests                                                                                                                                      |
| <b>OP (Orthographic Processing)</b>                                             |                                                                                                                         | Moderate                                          | TOC<br>FAR<br>Orthographic Processing<br>Irregular Word Reading Fluency                                        | TOSWRF-2 is also sensitive to OP weaknesses                                                                                                                                                                                             |
| <b>Gwm: Wa, Wv, Wc, AC</b><br>(Working Memory)                                  | Picture Span<br>Digit Span Forward<br>Letter-Number Seq.<br>Digit Span Backward<br>Digit Span Sequencing<br>Arithmetic  | Moderate                                          | CELF-5<br>Recalling Sentences<br>WJ IV COG<br>Numbers Reversed<br>Object-Number Sequencing<br>Verbal Attention | Evaluation of difference between auditory and visual memory span will require use of a separate memory battery. Arithmetic also measures math achievement (Gq:A3) and at the older ages may also involve quantitative reasoning (Gf:RQ) |
| <b>GI:MA</b><br>(Associative Memory)                                            | <del>Delayed Symbol Translation<br/>Immediate Symbol Translation<br/>Recognition Symbol Translation</del>                                                                                                | Moderate                                          | WJ IV COG<br>Visual-Auditory Learning<br>WRAML2<br>Sound Symbol<br>Sound Symbol Recall                         | --                                                                                                                                                                                                                                      |
| <b>Gs:P</b><br>(Perceptual Speed)                                               | Symbol Search<br>Cancellation                                                                                                                                                                            | Low-Moderate                                      | WJ IV Number Pattern Matching<br>WJ IV Letter Pattern Matching                                                 | Other Perceptual Speed tests, such as WJ IV Number Pattern Matching and Letter Pattern Matching are likely more highly related to BRS given emphasis on orthography                                                                     |
| <b>Gr:NA (Naming Facility/Speed of Lexical Access)</b>                          | <del>Naming Speed Literacy</del>                                                                                                                                                                         | Moderate                                          | CTOPP-2 Rapid Digit Naming<br>CTOPP-2 Rapid Number Naming                                                      |                                                                                                                                                                                                                                         |
| <b>Ga:PC</b><br>(Phonetic Coding)<br>Also referred to as Phonological Awareness |                                                                                                                       | High                                              | KTEA-3 Phonological Processing<br><b>CTOPP-2</b><br>WJ IV OL Segmentation<br>Sound Awareness<br>Sound Blending | KTEA-3 is statistically linked to the WISC-V and, therefore, should be an initial supplemental battery                                                                                                                                  |
| <b>Ga:UM</b><br>(Memory for Sound Patterns)                                     |                                                                                                                       | Low-Moderate                                      | <b>CTOPP-2</b> Nonword Repetition (also Gsm:MS)                                                                | Also called Phonological Memory                                                                                                                                                                                                         |

**Oral Vocabulary**

WIAT Receptive Voc- 99

WIAT Expressive Voc- 95

**Oral Language**

WIAT Oral Discourse - 105

**Other Oral Language**

CELF Recep Lang Index- 101

**May be a case  
of dyslexia****ORF Accuracy**DIBELS 88% intensive/at risk  
(2/1/24)DIBELS 86% intensive/at risk  
(1/15/24)**ORF Rate**DIBELS 66wcpm intensive/at risk  
(2/1/24)DIBELS 72wcpm intensive/at risk  
(1/15/24)**Silent Reading Fluency****Reading Comprehension***(cloze, maze, Q/A, timed)*DIBELS Maze intensive/at risk  
(Timed CBM 2/1/24)WIAT Reading Comp - 88  
(untimed)**Observations**Comprehension issues seem to  
be due to inaccurate decodingOn WIAT, repeatedly searched  
text for answers, took long  
time to respond**Real Word-Accuracy**

WIAT Word Reading - 78

**Nonsense Word-Accuracy**

WIAT Pseudoword Rd- 82

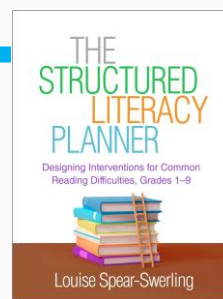
**Word Read- Automaticity**

WIAT Orthograph Fluency- 74

WIAT Decoding Fluency- 83

**Phonologic Awareness**

CTOPP PA Composite - 82





**Oral Vocabulary**

PPVT Receptive – 80

WJ Picture Voc 77

**Oral Language**WJ Oral Comprehension – 85  
(CLOZE)**Other Oral Language**

TOLD Spoken Language – 75

**Real Word-Accuracy**

WJ IV Word ID – 95

**Nonsense Word-Accuracy**

WJ IV Word Attack – 92

**Word Read- Automaticity**TOWRE Sight Wrd Efficiency – 95  
TOWRE Phonetic Decode – 97**Phonologic Awareness**

CTOPP PA Composite – 101

**Language  
difficulty****ORF Accuracy**

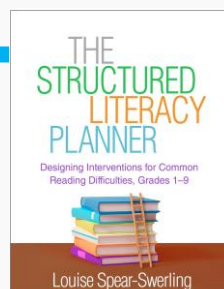
GORT Accuracy – SS of 8

**ORF Rate**

GORT – SS of 9

**Silent Reading Fluency**

WJ Sentence Rd Fluency – 84

**Reading Comprehension***(cloze, maze, Q/A, timed)*GORT Comprehension SS of 5  
(Timed & Q/A)WJ Passage Comp – 75  
(Untimed/Cloze)**Observations**GORT Comp – seemed to  
read fluently and could  
read all words

Name: Dan

Age: 13 years 4 month(s)

Grade: 8

Date: 12/4/2020

WISC-V WAIS-IV WPPSI-IV WIAT-4 WIAT-III WJ IV COG WJ IV ACH WJ IV OL KABC-II KTEA-3 CAS2 DAS-II SB5

g-Value = 0.74

Display Results Again

Click to re-display message regarding results of the current PSW analysis.

See Results in PSW-QA

Click to transfer the scores and data over to the PSW Quick Analysis tab.

## Are weaknesses domain specific?

Using the FCC as the predictor, if the difference between Actual and Predicted specific cognitive performance equals or exceeds the Critical Value, then the size of the difference is unusually large and infrequent and the weakness is domain specific.

Difference

29.55

Critical Value

14.91

Yes, domain specific

Base rate value set at 10%

## Cognitive Weakness

If calculated, the Inhibiting Cognitive Composite (ICC) is selected below by default. You may select a different area of cognitive weakness from the drop down menu for analysis.

Inhibiting Cognitive Composite (ICC) - 76

Actual

76

ICC

Predicted by

106

Strengths (FCC)

## Cognitive Strengths

The value here is either the Facilitating Cognitive Composite (FCC) or a user-entered Alternative Cognitive Composite (ACC).

FCC = 108

WIAT-4 Numerical Operations (MC;Gq;A3) Subtest - 101

## Supporting Academic Strengths

Areas listed in the drop down menu above have been identified as academic strengths for the individual.

## Is the difference statistically significant?

YES

$p < .05$

YES

A "YES" in these boxes indicates that the difference between the Facilitating Cognitive Composite (FCC or alternative) and the Actual cognitive or the Actual academic weakness score is statistically significant at a .95% level of probability (one-tailed; assumes the cognitive/academic weakness is < cognitive aggregate).

## Is underachievement unexpected?

Using the FCC as the predictor, if the difference between Actual and Predicted specific academic performance equals or exceeds the Critical Value, then the size of the difference is unusually large and infrequent and underachievement is unexpected.

Difference

20.80

Critical Value

16.88

Yes, unexpected underachievement

Base rate value set at 10%

## Academic Weakness

The first weakness in the list is selected by default. You may select a different area of academic weakness from the drop down menu for analysis.

WIAT-4 Word Reading (BRS;Grw-R;RD) Subtest - 84

Actual

84

BRS

Predicted by

105

Strengths (FCC)

Both Weaknesses?

YES

Strength of Relationship

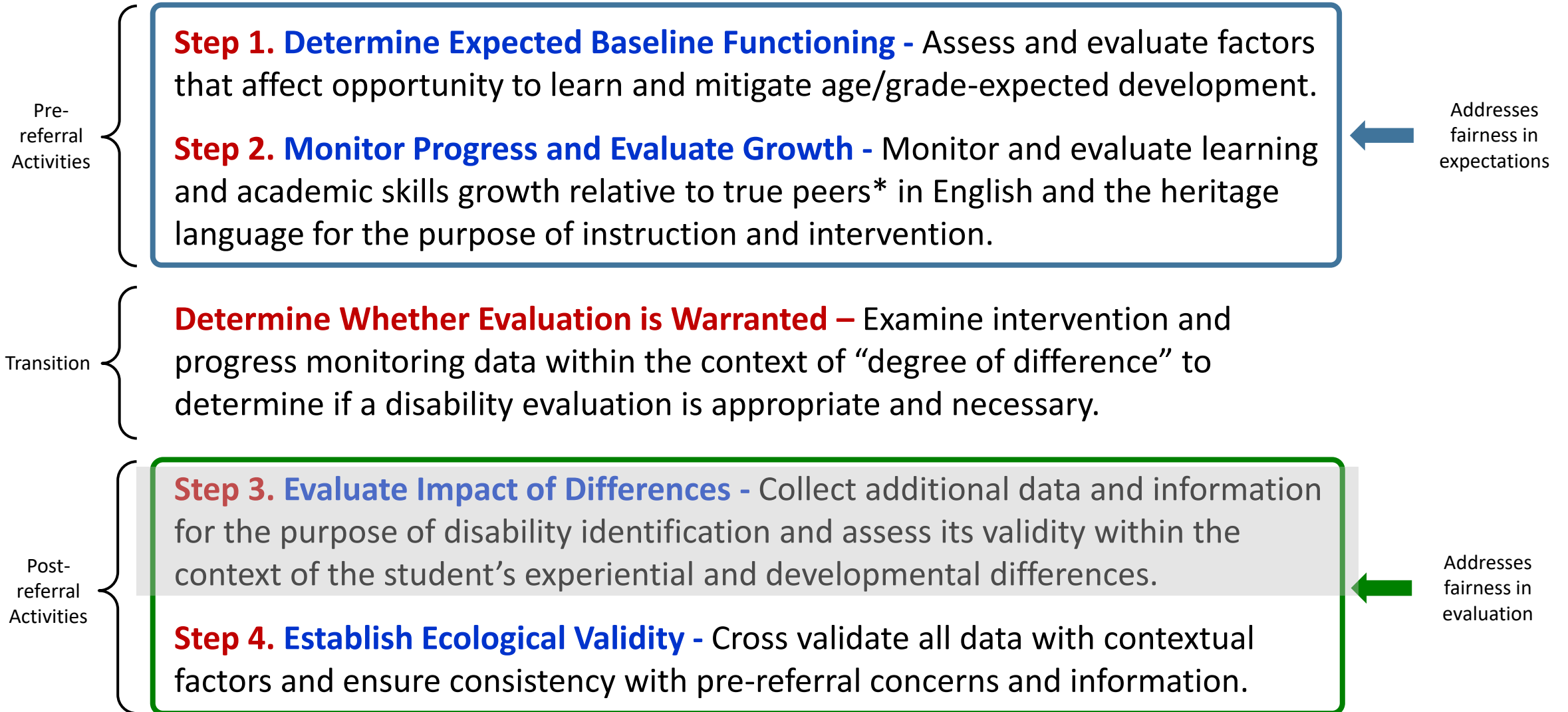
HIGH

## Is there a BELOW AVERAGE aptitude-achievement consistency?

YES, CONSISTENT

# Best Practice in Nondiscriminatory Assessment

## A Comprehensive Framework for Evaluation



*\*The concept of “true peers” is based on the assumption of comparability (Salvia & Ysseldyke, 1993) which presumes a relative equivalency of developmental and experiential factors above and beyond age. This includes development in a second language, acculturative learning opportunities, and any other factors that can inhibit basic development.*

Ortiz, S. (2025)

# Best Practice in Nondiscriminatory Assessment

## Addressing Exclusionary Factors via Examination of Test Score Validity with the C-LIM

There are three basic criteria that, when all are met, provide evidence to suggest that test performance reflects the primary influence of cultural and linguistic factors and not actual ability, or lack thereof. These criteria are:

**1. Overall Pattern of Decline:** *There exists a general, overall pattern of decline in the scores from left to right and diagonally across the matrix where performance is highest on the less linguistically demanding/culturally loaded tests (low/low cells) and performance is lowest on the more linguistically demanding/culturally loaded tests (high/high cells), and;*

**2. Within Expected Range:** *The magnitude of the aggregate test scores across the matrix for all cells fall within or above the expected range of difference (shaded area around the line) determined to be most representative of the examinee's background and development relative to the sample on whom the test was normed.*

**3. No Significant Score Variability:** *There is no variability in the scores that form the aggregate in any one cell or any variability between or among cells in the same level where high score performance may be masking the presence of low performance. Variability is defined as one score below average AND below the expected range, and the next lowest score is 1SD (15 points) higher and within the expected range.*

Results are **LIKELY INVALID** only if **ALL** conditions are **MET**.

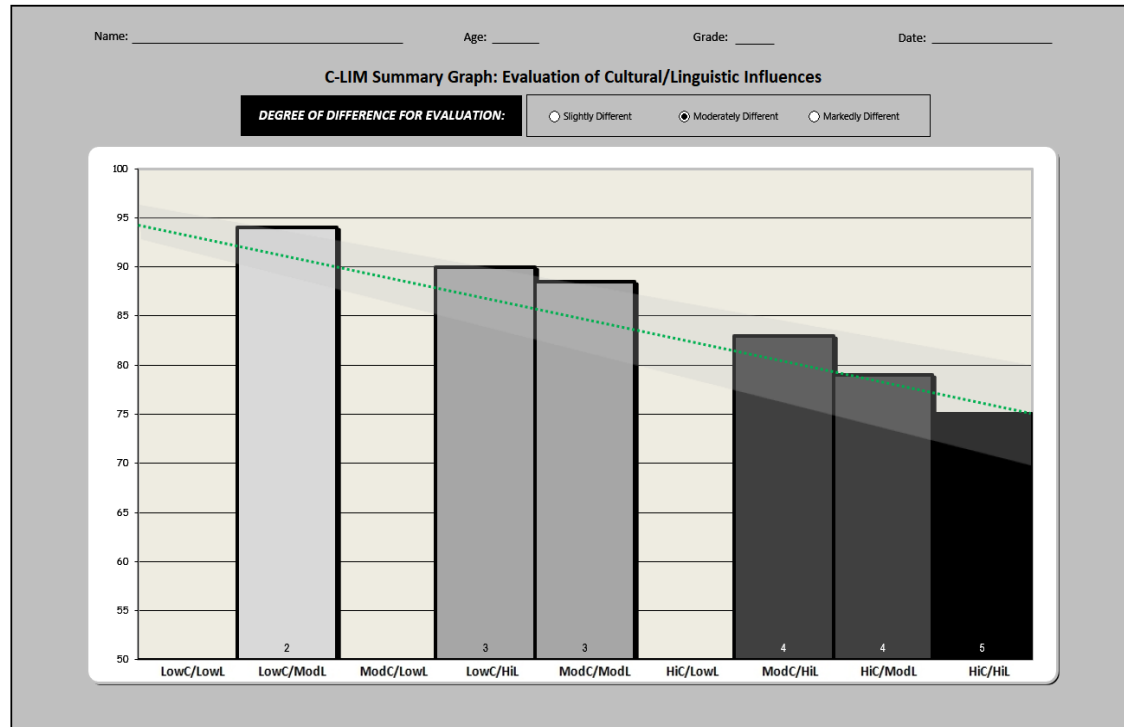
Results are **LIKELY VALID** when **ANY** condition is **NOT MET**.

**Interpretation:** When **ALL** three criteria are **MET**, it may be concluded that the test scores are **LIKELY INVALID** because they were influenced primarily by cultural/linguistic variables and cannot be interpreted. When any **ONE** criterion is **NOT MET**, the results can be assumed to be **LIKELY VALID** and may be interpreted if further evidence is generated to support conclusions.



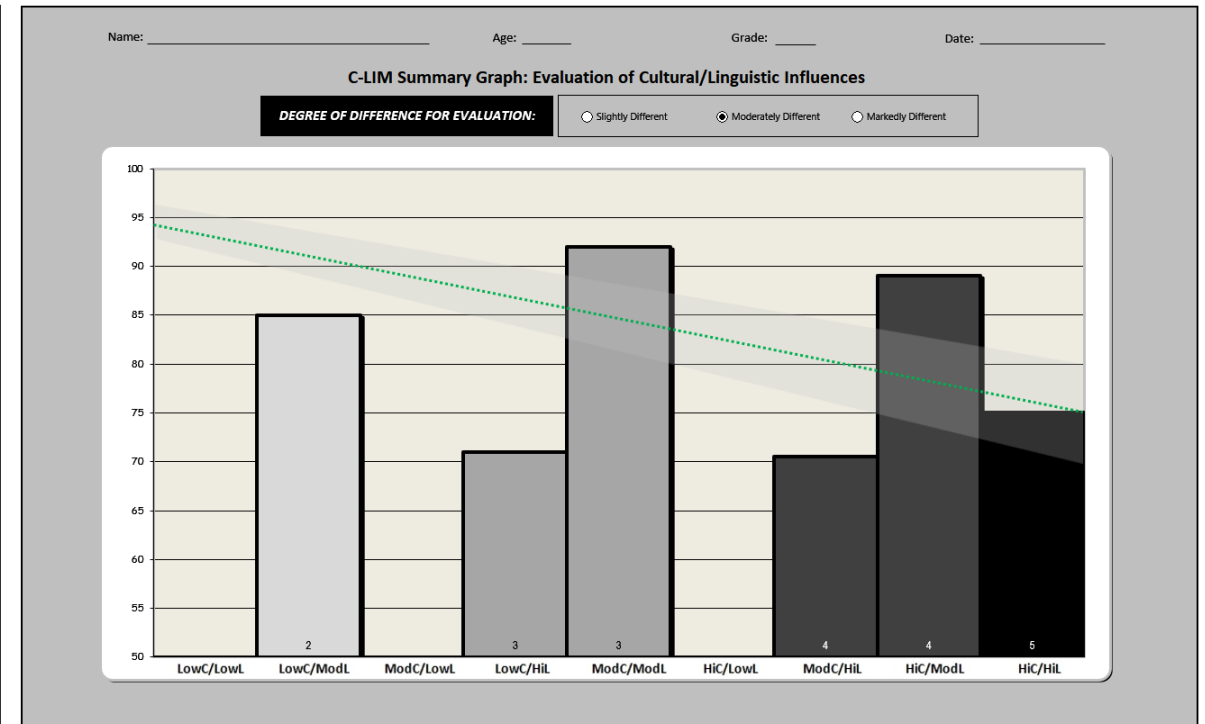
# Best Practice in Nondiscriminatory Assessment

## Addressing Exclusionary Factors via Examination of Test Score Validity with the C-LIM



Example of “**likely invalid**” score pattern—overall general decline **AND** scores within or above expected (“average” or typical) range **AND** scores show no important variability.

**Interpretation:** Performance PRIMARILY due to linguistic and cultural factors, scores CANNOT be interpreted specifically, and provide no evidence to support disability.



Example of “**likely valid**” score pattern—no overall decline **OR** scores below expected (“average” or typical) range **OR** scores show important variability.

**Interpretation:** Performance NOT PRIMARILY due to linguistic and cultural factors, scores CAN be interpreted but need further validation to provide evidence of possible disability.

We will be going through some considerations that have to be made about culture and language when doing an assessment. Much of what will be discussed comes from Dr. Sam Ortiz's work, which can be found on the CAI website.

<https://caipsychs.com/clim/>

## C-LIM

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- [Culture-Language Interpretive Matrix – Basic Version v6.1 \(Excel\) \(updated 6.13.24\)](#)

## C-LIM Information and Resources

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- [C-LIM Myths & Misconceptions: What the research really shows \(PDF from MIG 4/21/2023\)](#)
- [Culture-Language Interpretive Matrix – School Psyched Podcast on YouTube from 9/2/2018](#)
- [Culture-Language Interpretive Matrix – Myths and Misconceptions: A review of research \(PDF\)](#)
- [Culture-Language Interpretive Matrix – Instruction and Interpretation Tutorial – Free Version \(PDF\)](#)
- [Culture-Language Interpretive Matrix – Instruction and Interpretation Tutorial for X-BASS Version \(PDF\)](#)
- [Culture-Language Interpretive Matrix – General \(Word\)](#)
- [Culture-Language Interpretive Matrix – Sample Validity Statements \(Word\) \(updated 2.1.23\)](#)
- [Sample Report Using C-LIM – Case of Carlos – Identified as SLD – 14.2 \(Word\)](#)
- [Sample Report Using C-LIM – Case of Maria – SLD not Identified – 17.2 \(Word\)](#)

## C-LIM+ATE

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- [Culture-Language Interpretive Matrix – Achievement Test Extensions – Basic Version v2.1 \(Excel\) \(updated 6.13.24\)](#)

## C-LIM+ATE

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- [Culture-Language Interpretive Matrix – Achievement Test Extensions – Basic Version v2.1 \(Excel\) \(updated 6.13.24\)](#)

## Diverse Student Normal Ability Performance (D-SNAP)

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- [Diverse Student Normal Ability Performance v.02.22.24 \(Excel\) \(released 4.9.24\)](#)

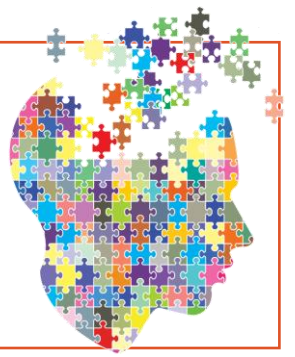
## True Peer Estimator (TPE v3.0) – formerly called D-STPGE

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- [True Peer Estimator – TPE v3.1 \(Excel\) \(updated 9.4.25\)](#)

## Sample XBA Reports

# INSTRUCTIONAL DESIGN PRINCIPLE #1



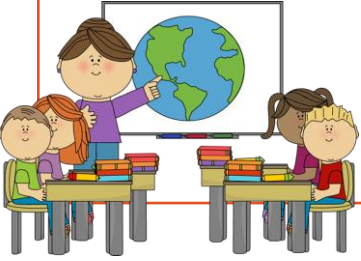
- Build vocabulary by combining new information with what the learner already knows
  - Strategic integration
  - Purposeful connections that are explicitly taught
  - Allow the EL child to see the connection between new English words and a concept they understand
  - Can use visuals to start a discussion, teacher then uses specifically chosen vocabulary that enhances the context



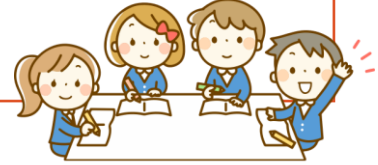
## INSTRUCTIONAL DESIGN PRINCIPLE #2

- Integrate multiple opportunities for using new vocabulary to make connections to lived experiences
  - Multiple exposures - opportunities to use the new vocabulary and associated concepts in different contexts.
  - Provide frequent opportunity to think deeply about the taught information and then make the link between the word and concept.
- After choosing a topic (i.e. water cycle), can have the student brainstorm words in their native language first. Teacher then can use those words to create a word wall. Discuss the orthographic similarities and differences of those words to English.



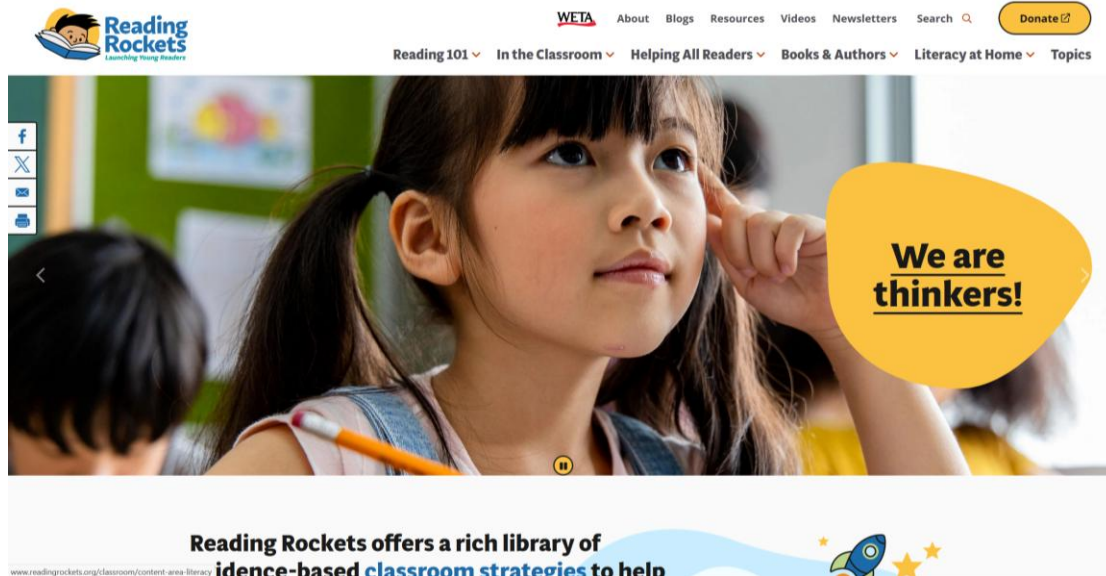


## INSTRUCTIONAL DESIGN PRINCIPLE #3



- Intentional opportunities for Adult-Child Language Interaction around New Vocabulary during content learning
  - Intentional language opportunities allow explicit tasks and time for kids to respond, discuss, and engage in academic content
  - Can be maximized through small groups, group and individual turns, and planned opportunities for discussing and responding.
  - For example, if content was about seasons. Teacher could have two pics, one with tree with full green leaves, the other colorful leaves. Whole class discussed the differences and similarities. Individual children have opportunity to be the 'teacher'. This is a lesson that is taught for the whole week with teacher meeting with small groups and individual children.

<https://www.readingrockets.org/>



The header of the Reading Rockets website features the logo on the left, a navigation menu with links like 'WETA', 'About', 'Blogs', 'Resources', 'Videos', 'Newsletters', 'Search', and 'Donate' in the center, and a secondary menu with 'Reading 101', 'In the Classroom', 'Helping All Readers', 'Books & Authors', 'Literacy at Home', and 'Topics' on the right. Below the header is a large banner image of a young girl thinking, with a yellow speech bubble that says 'We are thinkers!'. At the bottom of the banner, text reads 'Reading Rockets offers a rich library of evidence-based classroom strategies to help'.

<https://www.colorincolorado.org/>

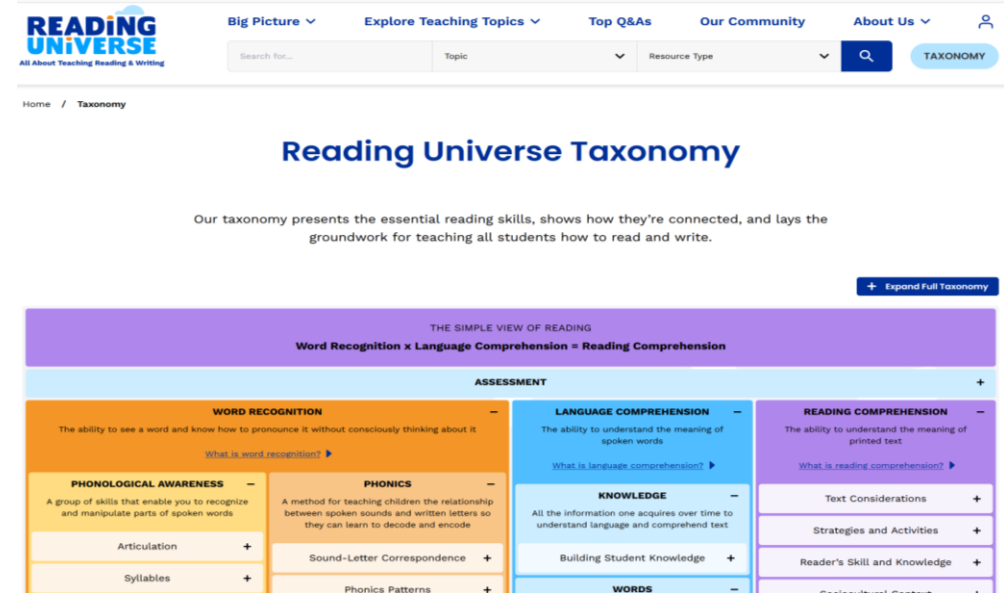


The header of the ¡Colorín colorado! website includes social media icons, a search bar, and a navigation menu with links like 'En español', 'About Us', 'Newsletters', 'WETA', and 'Donate'. Below the header is a banner with the text '¡Colorín colorado! A bilingual site for educators and families of English language learners'. At the bottom, there is a navigation bar with categories like 'ELL Basics', 'School Support', 'Teaching ELLs', 'For Families', 'Books & Authors', 'Videos', 'Audience', and 'Resource Library'.



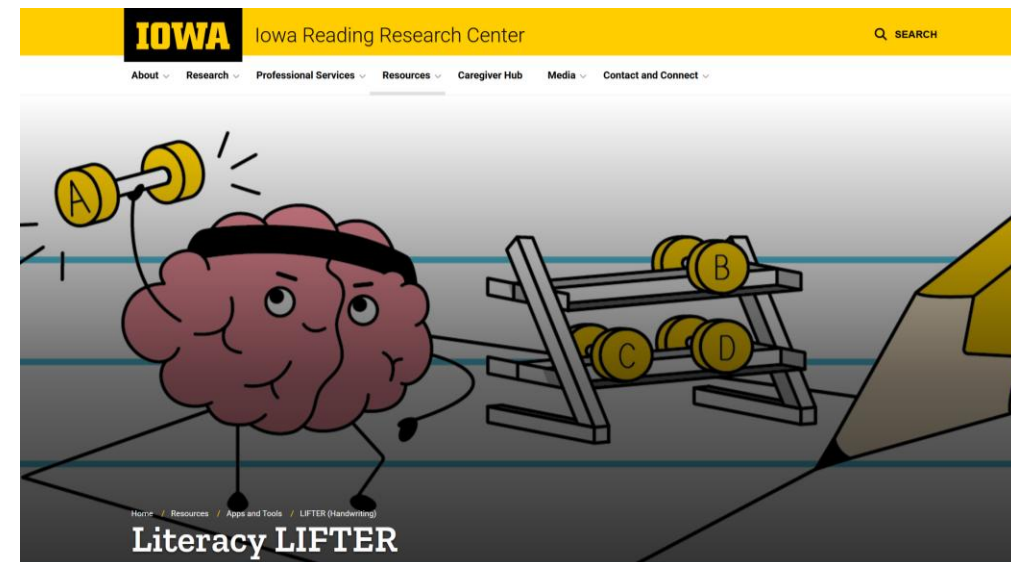
A video player interface for a featured video. The video title is 'Being Bilingual Is a Superpower! Multilingual Videos for Families and Schools'. The video thumbnail shows a woman and two children. Below the video player is a blue button that says 'More Video'.

<https://readinguniverse.org/taxonomy>



The header of the Reading Universe Taxonomy website features the logo on the left, a navigation menu with links like 'Big Picture', 'Explore Teaching Topics', 'Top Q&As', 'Our Community', 'About Us', and a search bar. Below the header is a large banner with the text 'Reading Universe Taxonomy'. Below the banner is a section titled 'THE SIMPLE VIEW OF READING' with the text 'Word Recognition x Language Comprehension = Reading Comprehension'. Below this is a table with three columns: 'WORD RECOGNITION', 'LANGUAGE COMPREHENSION', and 'READING COMPREHENSION'. Each column has a description and a list of sub-topics. The 'WORD RECOGNITION' column includes 'PHONOLOGICAL AWARENESS' and 'PHONICS'. The 'LANGUAGE COMPREHENSION' column includes 'KNOWLEDGE'. The 'READING COMPREHENSION' column includes 'Text Considerations', 'Strategies and Activities', 'Reader's Skill and Knowledge', and 'Cultural Context'.

<https://irrc.education.uiowa.edu/lifter>



The header of the Literacy LIFTER website features the logo on the left, a navigation menu with links like 'About', 'Research', 'Professional Services', 'Resources', 'Caregiver Hub', 'Media', and 'Contact and Connect', and a search bar. Below the header is a large banner with a cartoon brain character holding a dumbbell labeled 'A' and standing next to a rack of dumbbells labeled 'B', 'C', and 'D'. Below the banner is a section titled 'Literacy LIFTER' with a navigation bar that says 'Home / Resources / Apps and Tools / LIFTER (Handwriting)'.

<https://www.thereadingleague.org/compass/families-and-caregivers/>



### Primary Considerations for Families and Caregivers

Families and caregivers play a crucial role in fostering language and literacy skills. They can also support schools as they adopt reading instruction that is aligned with the science of reading.

For additional resources for families and caregivers, visit [this link](#).

<https://fcrr.org/student-center-activities>

HOME

ABOUT

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PROJECTS

DIVISIONS

PEOPLE

RESOURCE DATABASE

STUDENT EXPERIENCE

SUPPORT

SEARCH

FOR EDUCATORS

FOR LEADERS

FOR FAMILIES

FOR COMMUNITIES

FCRR STUDENT CENTER ACTIVITIES

THE ACADEMY

ADDITIONAL RESOURCES

HOME / FCRR STUDENT CENTER ACTIVITIES

Digital Student Center Activities

Pre-Kindergarten

Kindergarten and First Grade

Second and Third Grade

Fourth and Fifth Grade

Spanish Student Center Activities

Teacher Resource Guide

FCRR Student Center Activities Aligned to Florida's B.E.S.T. Standards: English Language Arts

SCAs in Action

FCRR Student Center Activities

A team of researchers and teachers at FCRR collected ideas and created Student Center Activities for use in pre-kindergarten through fifth grade classrooms. The activities are designed for students to practice, demonstrate, and extend their learning of what has already been taught, sometimes with teacher assistance and sometimes independently. Students can complete the activities in small groups, pairs, or individually.

Accompanying these Student Center Activities is a Teacher Resource Guide that offers important insights on differentiated instruction and how to use the Student Center materials.

Component

Subcomponent

Activity Name

Activity Number

Student Icon

Vocabulary

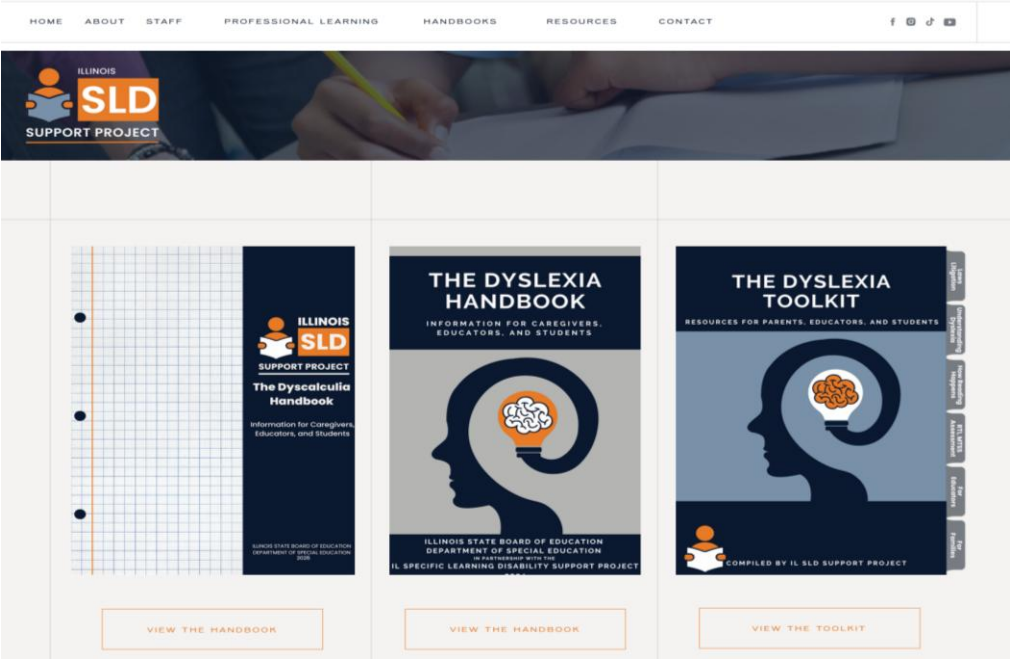
V. 009

Objective

Materials

Activity

<https://sldsupports.org/dyslexia-guides>



<https://brianponcy.wixsite.com/my-site-2/m-i-n-d-2-0-facts-on-fire>

M.I.N.D. 2.0 - FACTS ON FIRE

Measures & Interventions for Numeracy Development

HOME

M.I.N.D. 2.0 - FACTS ON FIRE

INTERVENTION RESOURCES

RESEARCH & FAQ

MEDIA CONTENT

CONTACT/TRAINING

M.I.N.D. 2.0 - FACTS ON FIRE

Facts on Fire is an empirically-supported standard protocol math intervention program that is implemented daily for 5-10 minutes. It was designed to be used school-wide to increase students computation fluency and has been shown to significantly increase schools math achievement scores. In addition to providing a high quality systems level intervention, it can also be adapted to support multi-tiered systems of support and intensive intervention in math. To accomplish these goals schools schedule daily practice time after morning announcements and students move through a pre-determined sequence of skills as mastery criteria are met. To prepare Facts on Fire for your school or classroom, simply select a target skill, download & print the student workbooks, and download & save the PowerPoint smartboard lessons for easy access and implementation.

Facts on Fire is guided by three aspects of system change: breadth of impact, efficient use of resources, and likelihood of success. **Breadth of impact** refers to the degree of influence a change has on the system in which it is made. **Efficient use of resources** refers to changes that improve the efficiency with which sites employ currently available resources. **Likelihood of success** refers to the probability that the goal is accomplishable under the current conditions in a reasonable time frame. Facts on Fire follows these principles to result in marked improvement in student math achievement outcomes.



Stephen Parker

# Reading Instruction and Phonics

(Second Edition)

Theory and Practice for Teachers

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## Structured Literacy Interventions

Teaching Students with Reading Difficulties, Grades K-6

edited by **Louise Spear-Swerling**

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# READING FOR LIFE

HIGH QUALITY LITERACY INSTRUCTION FOR ALL

**LYN STONE**

# LITERACY FOUNDATIONS FOR ENGLISH LEARNERS

A COMPREHENSIVE GUIDE TO EVIDENCE-BASED INSTRUCTION

Elsa Cárdenas-Hagan  
FOREWORD BY SHARON VAUGHN

K-2

## SHIFTING THE BALANCE

6 Ways to Bring the Science of Reading into the Balanced Literacy Classroom

Jan Burkins • Kari Yates