

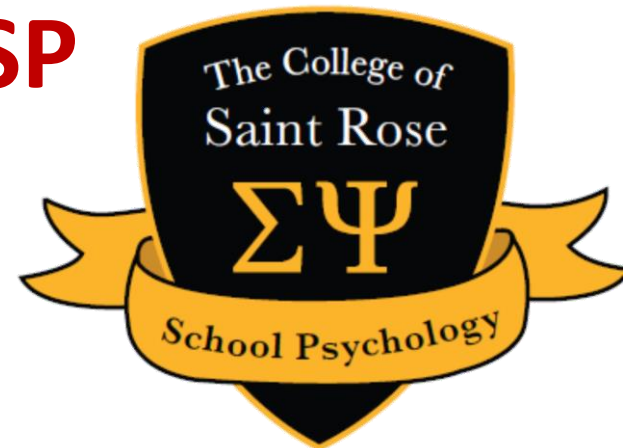
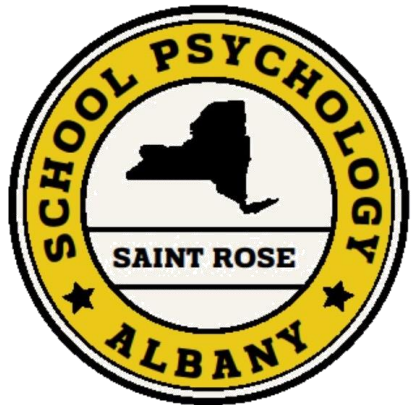


# USING THE SIMPLE VIEW OF READING TO FOSTER SP AND SLP COLLABORATION IN THE IDENTIFICATION OF AND INTERVENTION FOR CHILDREN WITH DYSLEXIA

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# General Intelligence (g)

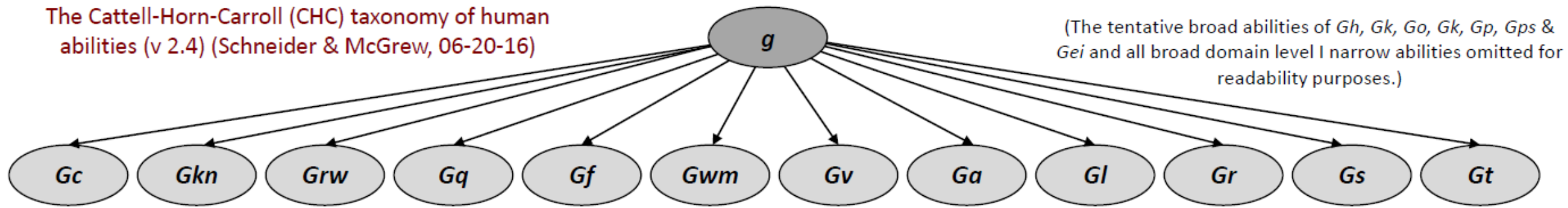
Broad

Quantitative Knowledge (Gq)	Reading & Writing (Grw)	Comprehen Knowledge(Gc)	Fluid Reasoning (Gf)	Working Memory (Gwm)	Learning Efficiency (Gl)	Visual Spatial Processing (Gv)	Auditory Processing (Ga)	Retrieval Fluency (Gr)	Processing Speed (Gs)
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Narrow

Mathematical Knowledge (KM)	Reading Decoding (RD)	General info (K0)	Induction (I)	Aud Short Term memory (WA)	Associative Memory (MA)	Visualization (VZ)	Phonic Coding (PC)	Ideational Fluency (FI)	Perceptual Speed (P)
Mathematical Achieve (A3)	Reading Comp (RC)	Language Develop (LD)	General Seq Reasoning (RG)	Vis Spatial Short Term Mem (Wv)	Meaningful Memory (MM)	Speeded Rotation (SR)	Speech/Sound Discrim (US)	Expressional Fluency (FE)	Percept Speed Search (Ps)
	Reading Speed (RS)	Lexical Knowledge (VL)	Quantitative Reasoning (RQ)	Attention Control (AC)	Free Recall Memory (M6)	Imagery (IM)	Resistance to Aud Distort (UR)	Associational Fluency (FA)	Percept Speed Compare (Pc)
	Writing Ability (WA)	Listening Ability (LS)		Working Mem Capacity (Wc)		Flexibility of Closure (CF)	Maint & Judging Rhythm (U8)	Speed of Lexical Access (LA)	Number Facility (N)
	Spelling Ability (SG)	Communicat Ability (CM)				Closure Speed (CS)	Memory for Sound Patt (UM)	Naming Facility (NA)	Reading Speed (RS)
	English Usage (EU)	Grammatical Sensitivity (MY)				Spatial Scanning (SS)	Musical Discrimin (U1)	Word Fluency (FW)	Writing Speed (WS)
	Writing Speed (WS)					Length Estimation (LE)	Absolute Pitch (UP)	Sensitivity to Problems (SP)	
				Intelligence as Knowledge		Percept Illusions (IL)	Sound localization (UL)	Figural Fluency (FF)	
				Intelligence as a process					
				Intelligence as process speed/fluency				Figural Flexibility (FX)	

The Cattell-Horn-Carroll (CHC) taxonomy of human abilities (v 2.4) (Schneider & McGrew, 06-20-16)



<p><b>Comprehension-knowledge (Gc):</b> The depth and breadth of declarative and procedural knowledge and skills valued by one's culture. Comprehension of language, words, and general knowledge developed through experience, learning and acculturation.</p>	<p><b>Visual-spatial processing (Gv):</b> The ability to use mental imagery, store images in primary memory, or perform visual-spatial analysis or mental transformation of images in the "mind's eye."</p>
<p><b>Domain-specific knowledge (Gkn):</b> The depth, breadth, and mastery of specialized declarative and procedural knowledge typically acquired through one's career, hobby, or other passionate interest. The <i>Gkn</i> domain is likely to contain more narrow abilities than are currently listed in the CHC model.</p>	<p><b>Auditory processing (Ga):</b> The ability to perceive, discriminate, and manipulate sounds and information received through the ears. Includes the processing of auditory information in primary memory and/or the activation, restructuring, or retrieval of information from semantic-lexical memory based on phonemes.</p>
<p><b>Reading and writing (Grw):</b> The depth and breadth of declarative and procedural knowledge and skills related to written language or literacy.</p>	<p><b>Learning efficiency (Gl):</b> The ability and efficiency to learn, store, and consolidate new information in long-term memory.</p>
<p><b>Quantitative knowledge (Gq):</b> The depth and breadth of declarative and procedural knowledge related to mathematics. The <i>Gq</i> domain is likely to contain more narrow abilities than are currently listed in the CHC model.</p>	<p><b>Retrieval fluency (Gr):</b> The rate and fluency at which individuals can produce and retrieve verbal and nonverbal information or ideas stored in long-term memory.</p>
<p><b>Fluid reasoning (Gf):</b> The use of deliberate and controlled focused attention to solve novel "on the spot" problems that cannot be solved solely by using prior knowledge (previously learned habits, schemas, or scripts). Reasoning that depends minimally on learning and acculturation.</p>	<p><b>Processing speed (Gs):</b> The ability to control attention to automatically and fluently perform relatively simple repetitive cognitive tasks. Attentional fluency.</p>
<p><b>Short-term working memory (Gwm):</b> The ability to encode, maintain, and/or manipulate auditory or visual information in primary memory (while avoiding distractions) to solve multiple-step problems. The mind's mental "scratchpad" or "workbench."</p>	<p><b>Reaction and decision speed (Gt):</b> The speed at which very simple perceptual discriminations or decisions can be made.</p> <p>© Institute for Applied Psychometrics; Kevin McGrew 06-21-16</p>

# 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)

## Reading Achievement

## Math Achievement

## Writing Achievement

*Gf*

Inductive (I) and general sequential reasoning (RG) abilities play a moderate role in **reading comprehension**.

**Inductive (I) and general sequential (RG) reasoning abilities are consistently very important for math problem solving at all ages.**

Inductive (I) and general sequential reasoning abilities (RG) are consistently related to **written expression** at all ages.

*Gc*

Language development (LD), lexical knowledge (VL), and listening ability (LS) are important at all ages for **reading acquisition and development**. 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 (K0) are important primarily after about the 2<sup>nd</sup> grade. These abilities become increasingly important with age.

*Gsm*

Memory span (MS) and **working memory capacity (WM) or attentional control**. **Gwm** important for **overall reading success**.

Memory span (MS) and **working memory capacity (WM) or attentional control**. **Gmw** important for **overall math success**.

Memory span (MS) is important to writing, especially **spelling** skills whereas working memory has shown relations with advanced writing skills (e.g., **written expression**). **Gmw** important for **overall writing success**.

*Gv*

Orthographic Processing (often measured by tests of perceptual speed) – **reading fluency**

Visualization (VZ) is important primarily for higher level or **advanced mathematics** (e.g., geometry, calculus).

Orthographic Processing (often measured by tests of perceptual speed) - **spelling**

*Ga*

Phonetic coding (PC) or “phonological awareness/processing” is very important during the elementary school years for the development of **basic reading skills**.

Phonetic coding (PC) or “phonological awareness/processing” is very important during the elementary school years for both **basic writing skills and written expression** (primarily before about grade 5).

*Glr*

Naming facility (NA) or “rapid automatic naming” (also called speed of lexical access) is very important during the elementary school years. Associative memory (MA) is also important.

Naming Facility (NA; or speed of lexical access); Associative Memory (MA) – **rapid retrieval of basic math facts**

Naming facility (NA) or “rapid automatic naming” (also called speed of lexical access) has demonstrated relations with written expression, primarily **writing fluency**.

*Gs*

Perceptual speed (P) abilities are important during all school years, particularly the elementary school years.

Perceptual speed (P) abilities are important during all school years, particularly the elementary school years.

Perceptual speed (P) abilities are important during all school years for basic writing and related to all ages for written expression.

# 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
<b>Background Knowledge (Gc)</b>			109	101 to 111	65	Average Range
<b>Breadth and depth of acquired cultural knowledge and its effective application</b>	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

# 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 LANGAUGE - 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)

7

We will not have time to discuss in depth the considerations that have to be made about culture and language when doing an assessment. Please go to Dr. Sam Ortiz's website for more information about the CLIM and CLIMATE. <https://facpub.stjohns.edu/~ortiz/CLIM/>

**THIS PAGE IS FOR C-LIM AND RELATED DOWNLOADS ONLY**

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Some of these files/programs are updated periodically and you may compare versions based on the release dates noted next to files/programs that have been revised.

Dr. Ortiz

## C-LIM

[Culture-Language Interpretive Matrix – Basic Version v6.0 \(Excel\)](#) (updated 4.20.23)

## C-LIM INFORMATION AND RESOURCES

[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

[Culture-Language Interpretive Matrix - Achievement Test Extensions – Basic Version v2.0 \(Excel\)](#) (updated 4.11.23)

## Diverse Student True Peer Group Estimator

[Diverse Student True Peer Group Estimator – D-STPGE v1.0 \(Excel\)](#) (updated 2.1.23)

## Sample XBA Reports

[Sample – AIR – Triennial Re-evaluation ELL with SLD – 14.7](#)

[Sample – AIR – Initial Evaluation – ELL with SLD – Option C – 13.2](#)

[Sample – ELL Initial Evaluation by Justin Potts – 12.9](#)

[Sample – Case Report by Ortiz – 15.9](#)

[Sample – Case Report – Carsam – 15.9](#)

[Sample XBA Report – Campbell – 14.2](#)

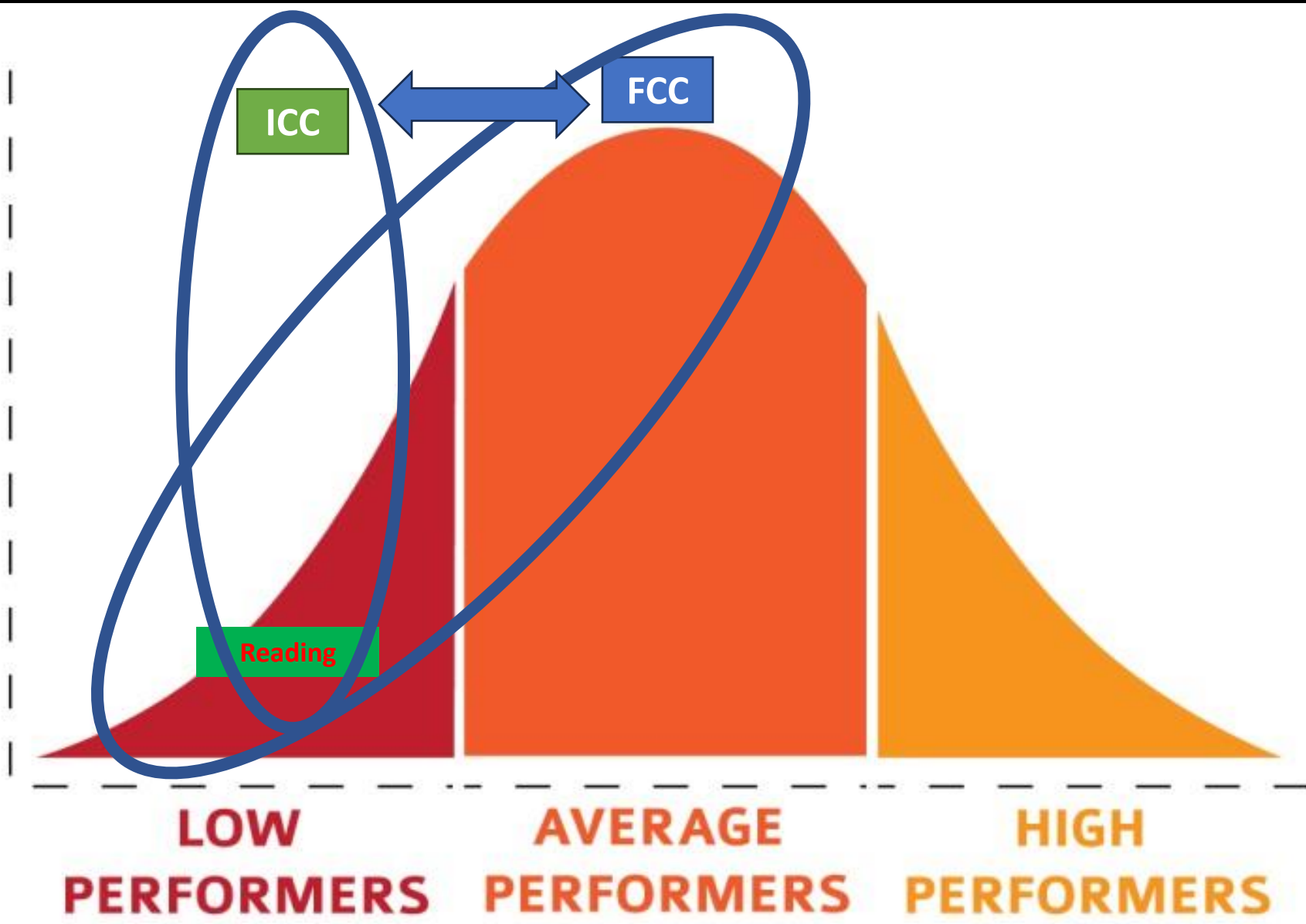
[Sample XBA Report – Hannah – 14.2](#)

[Sample XBA Report – Steve – 12.5](#)

[Sample XBA Report – Victor – 15.4](#)



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

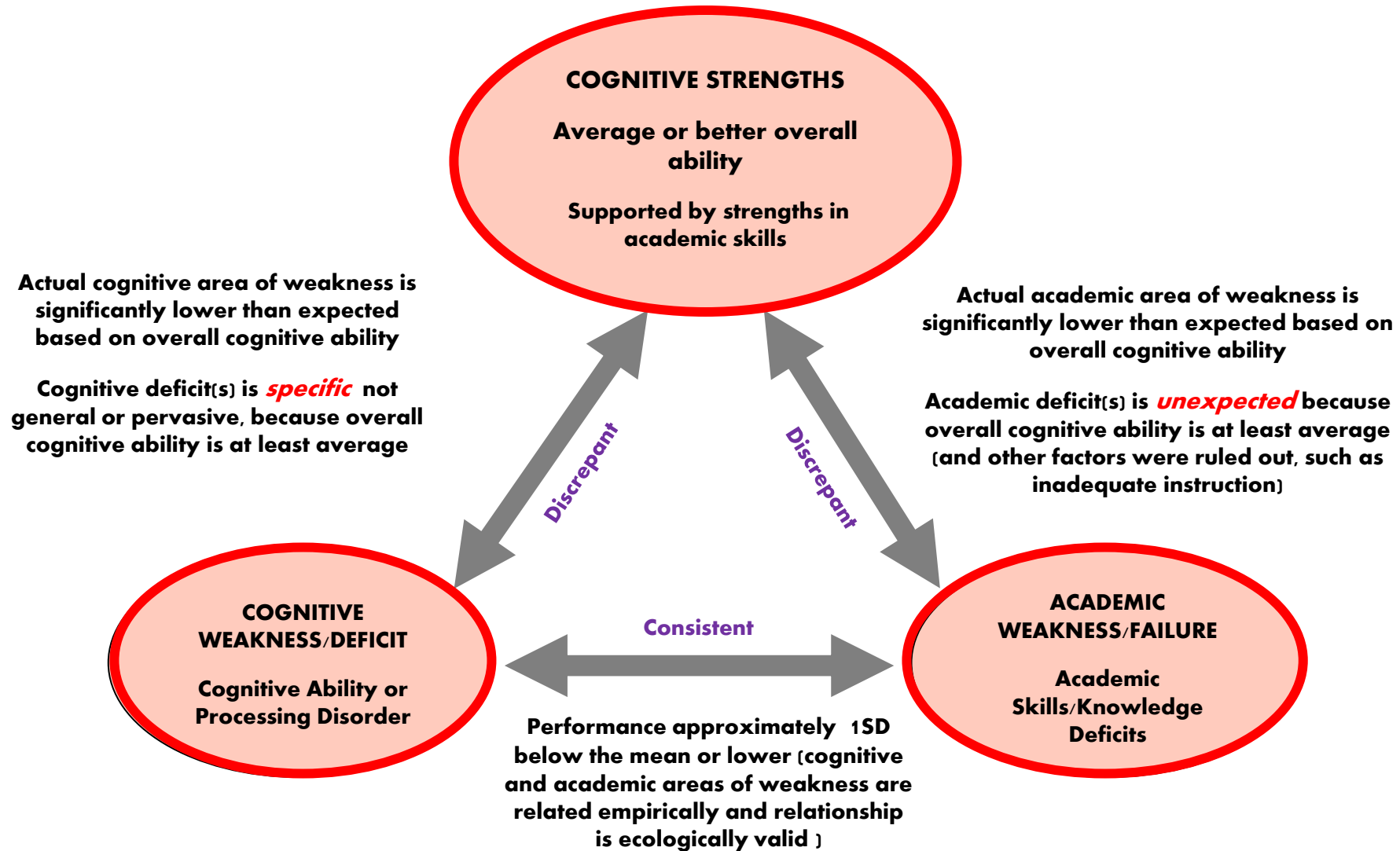


**LOW PERFORMERS**

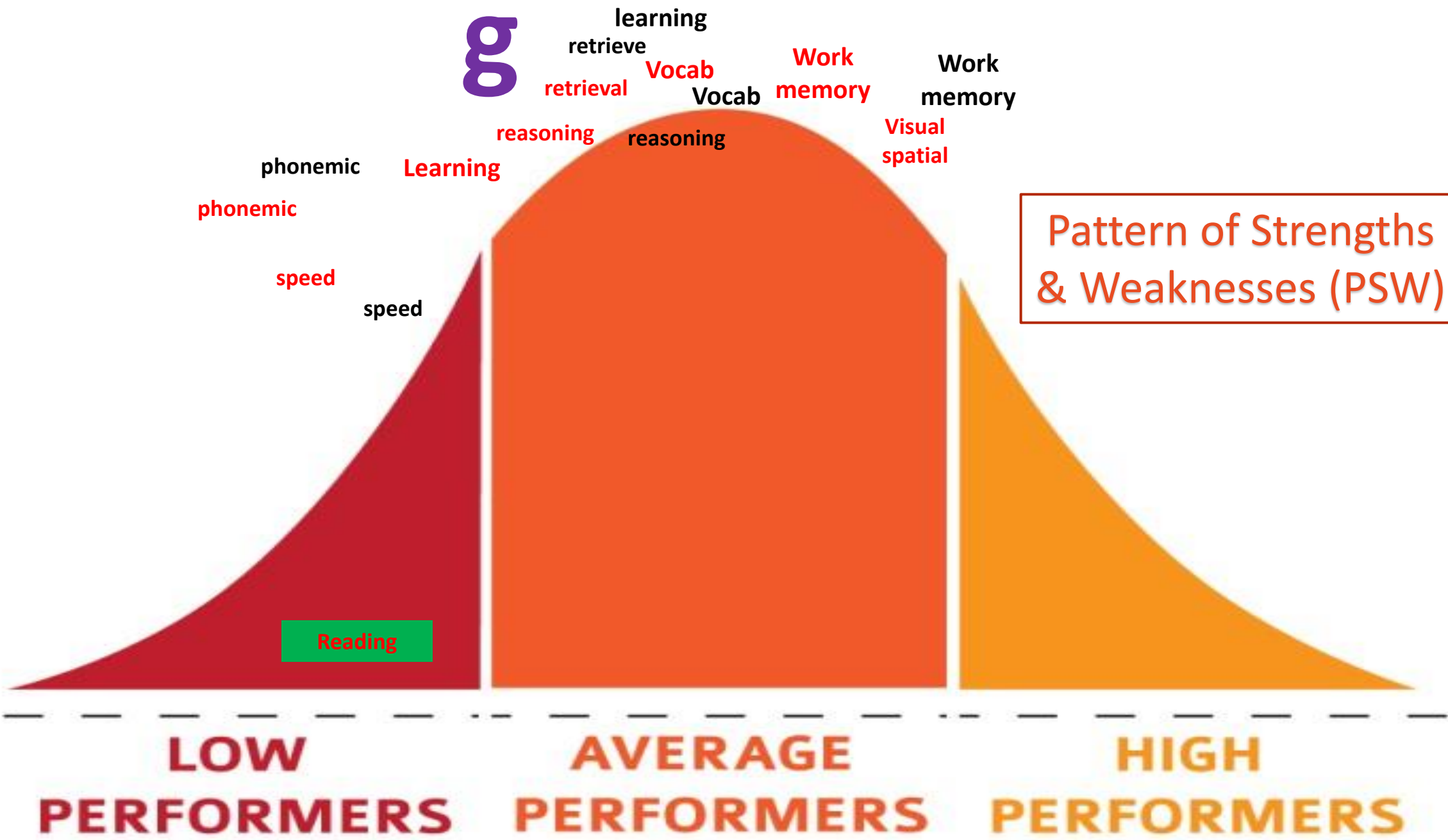
**AVERAGE PERFORMERS**

**HIGH PERFORMERS**

# Conceptual Similarities Among Alternative Research-based Approaches to SLD



Flanagan, Ortiz, and Alfonso (2013); Flanagan, Fiorello, and Ortiz (2010);  
Hale, Flanagan, and Naglieri (2008)



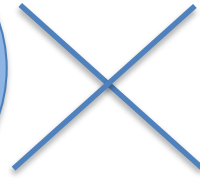
ABILITIES AND PROCESSES RELATED TO SLD AREA: <b>BRS</b>	WISC-V SUBTEST	DEGREE OF RELATIONSHIP BASED ON LITERATURE REVIEW	EXAMPLE OF SUPPLEMENTAL SUBTESTS VIA XBA IF NECESSARY	COMMENTS
<b>Gc:VL (Lexical Knowledge)</b>	Similarities Vocabulary	Moderate	CELF-5 Word Classes Word Definitions	Similarities may also involve Gf:I CELF-5 is statistically linked to the WISC-V and therefore should be an initial supplemental battery
<b>Gc:K0 (General Information)</b>	Comprehension Information	Moderate	WJ IV COG 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 FAR Orthographic Processing Irregular Word Reading Fluency	TOSWRF-2 is also sensitive to OP weaknesses
<b>Gwm: Wa, Wv, Wc, AC (Working Memory)</b>	Picture Span Digit Span Forward Letter-Number Seq. Digit Span Backward Digit Span Sequencing Arithmetic	Moderate	CELF-5 Recalling Sentences WJ IV COG Numbers Reversed Object-Number Sequencing 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 (Associative Memory)</b>	Delayed Symbol Translation Immediate Symbol Translation Recognition Symbol Translation	Moderate	WJ IV COG Visual-Auditory Learning WRAML2 Sound Symbol Sound Symbol Recall	--
<b>Gs:P (Perceptual Speed)</b>	Symbol Search Cancellation	Low-Moderate	WJ IV Number Pattern Matching 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>	Naming Speed Literacy	Moderate	CTOPP-2 Rapid Digit Naming CTOPP-2 Rapid Number Naming	
<b>Ga:PC (Phonetic Coding)</b> Also referred to as Phonological Awareness	--	High	KTEA-3 Phonological Processing <b>CTOPP-2</b> WJ IV OL Segmentation Sound Awareness Sound Blending	KTEA-3 is statistically linked to the WISC-V and, therefore, should be an initial supplemental battery
<b>Ga:UM (Memory for Sound Patterns)</b>	--	Low-Moderate	<b>CTOPP-2</b> Nonword Repetition (also Gsm:MS)	Also called Phonological Memory

# 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



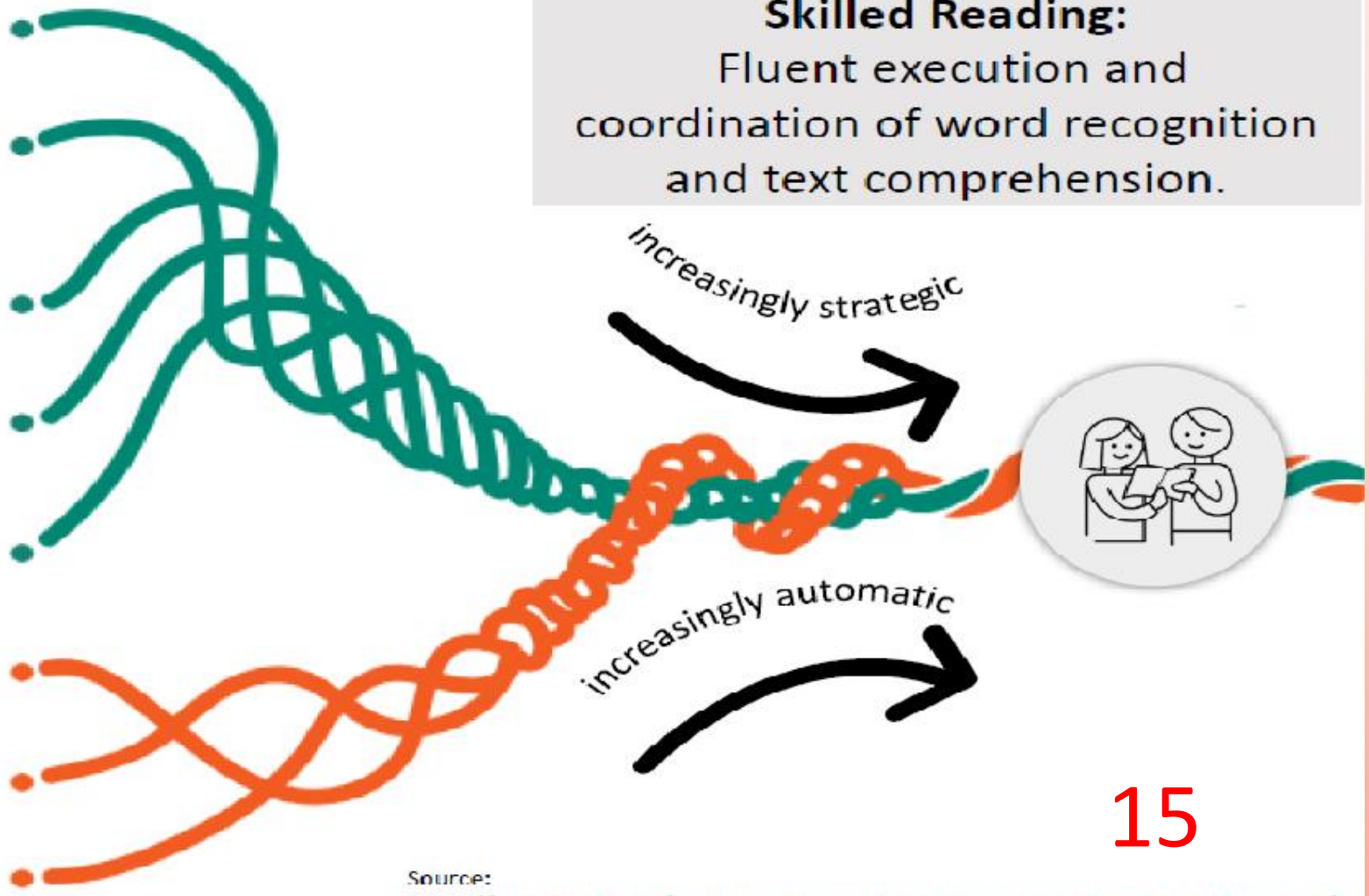
- Background Knowledge
- Vocabulary
- Language Structures
- Verbal Reasoning
- Literacy Knowledge

## Word Recognition



- Sight Recognition
- Decoding
- Phonological Awareness

**Reading Comprehension**  
**Skilled Reading:**  
Fluent execution and coordination of word recognition and text comprehension.



# The Language Literacy Network

The many language components that unify into skilled reading and writing (Wasowicz, 2021)

## LANGUAGE COMPREHENSION

- **Background Knowledge** (facts, concepts, schemas...)
- **Vocabulary** (breadth & depth; definition, polysemy, related words...)
- **Language Structures** (phonology, morphology, word class, syntax, prosody...)
- **Verbal Reasoning** (connection of ideas; inference, prediction, metaphor...)
- **Pragmatics** (intended audience, purpose...)
- **Literacy Knowledge** (print concepts & conventions; text genre & structure...)

## LANGUAGE EXPRESSION

- **Background Knowledge** (facts, concepts, schemas...)
- **Vocabulary** (breadth & depth; definition, polysemy, related words...)
- **Language Structures** (phonology, morphology, word class, syntax, prosody...)
- **Verbal Reasoning** (connection of ideas; inference, prediction, metaphor...)
- **Pragmatics** (intended audience, purpose...)
- **Literacy Knowledge** (print concepts & conventions; text genre & structure...)



## WRITTEN WORD RECOGNITION

- **Phonological, Orthographic, and Morphological Awareness** (alphabetic principle, phonemes, syllables, word stress, letter-sound relationships, patterns and rules, morphemes, letter-meaning relationships...)
- **Decoding** (grapheme-to-phoneme mapping\* with simultaneous engagement of phonological-orthographic-morphological systems) \*mapping of phonemic, syllabic, and morphemic units

## WRITTEN WORD PRODUCTION

- **Phonological, Orthographic, and Morphological Awareness** (alphabetic principle, phonemes, syllables, word stress, letter-sound relationships, patterns and rules, morphemes, letter-meaning relationships...)
- **Encoding** (phoneme-to-grapheme mapping\* with simultaneous engagement of phonological-orthographic-morphological systems) \*mapping of phonemic, syllabic, and morphemic units
- **Transcription** (handwriting/letter formation, keyboarding/letter selection...)

Increasingly automatic with development of lexical representations

Increasingly automatic with development of lexical representations

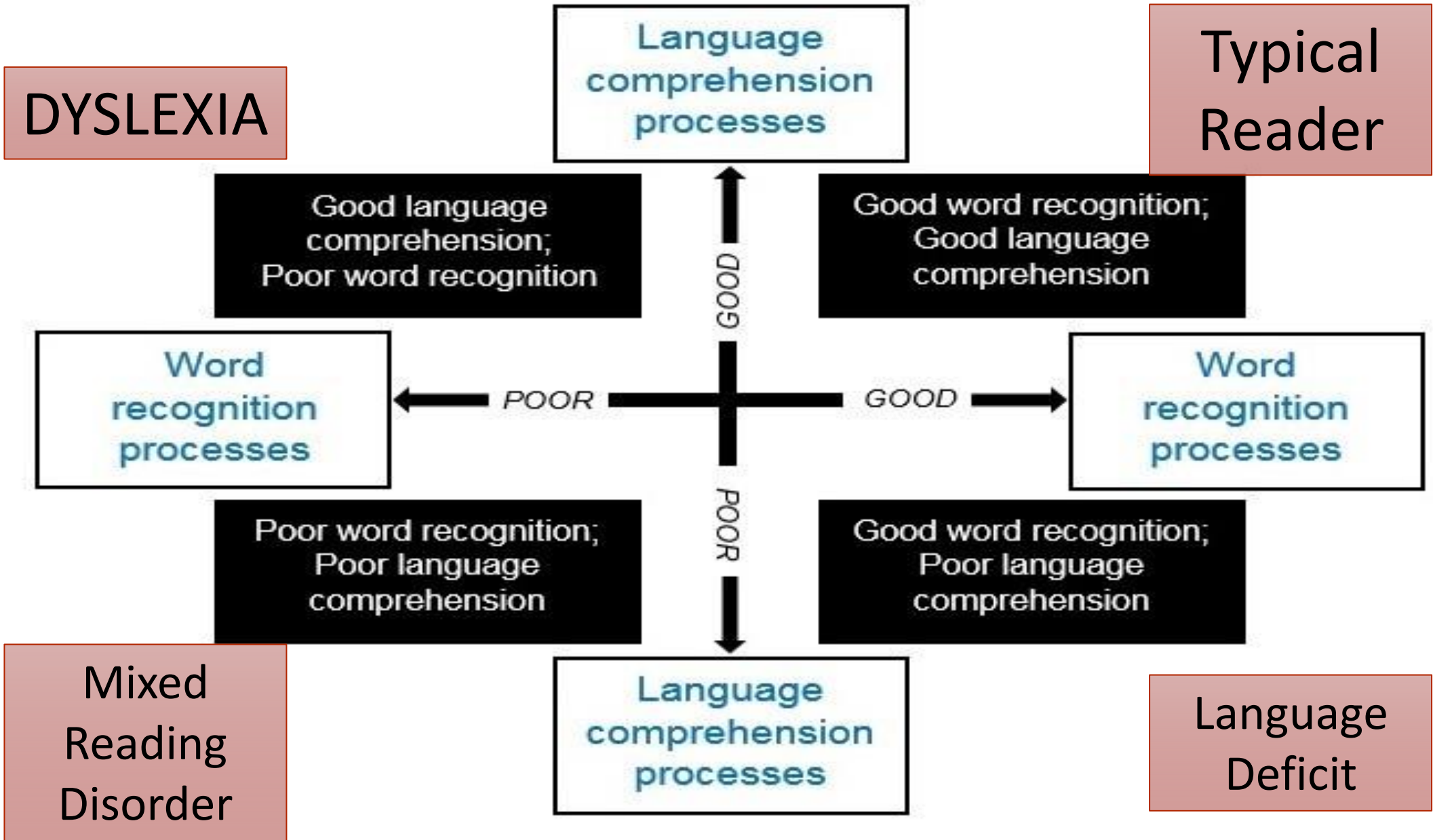
## The speech-to-print advantage

More complete transfer from encoding to decoding

Partial transfer from decoding to encoding



# The Simple View of Reading





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

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### 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

# Reports can address each

## Six Pillars of Effective Reading Instruction

Reading is enhanced when explicit and systematic instruction of oral language, phonological awareness, phonics, vocabulary, fluency, and comprehension occurs and the reciprocal relationship between these pillars is optimized. Effective reading instruction requires a balance between systematic teaching of the alphabetic code, linguistic features, and the application of this knowledge in continuous text. Reading comprehension, enjoyment, and building knowledge are important goals of reading.

### Oral Language

Oral Language is spoken language. It consists of phonology, syntax, morphology, vocabulary, discourse, and pragmatics. All are necessary to communicate and learn through spoken language.

### Phonological Awareness

Phonological awareness is a broad skill that includes hearing and manipulating units of oral language such as word, rhyme, syllable, onset-rime, and phoneme.

### Phonics

Phonics teaches what sounds correspond to which letters and letter-groups.

### Vocabulary

Vocabulary refers to words learners need to know to communicate effectively. Vocabulary includes the knowledge of word meanings and the context for using these words.

### Reading Fluency

Reading fluency involves the application of alphabetic knowledge with fluency, accuracy, expression, and appropriate pacing.

### Comprehension

Comprehension is making meaning from text and encompasses all other components of reading development (Oral Language, Phonemic Awareness, Phonics, Vocabulary, Reading Fluency).

## Skills and Knowledge

**Phonology:** an awareness of the sounds in language

**Syntax:** the structural rules of language and word order

**Morphology:** the meaning of word forms and parts

**Vocabulary:** the meaning of words and phrases

**Discourse:** communication of thought by words, talk, conversation, and/or gestures

**Pragmatics:** social rules of communication

**Word:** a single distinct meaningful element of speech or writing

**Rhyme:** are a sequence of words with similar sounds, especially end sounds

**Syllable:** largest units of sound in a word; each syllable has at least one vowel

**Onset and Rime:** onset is the consonant sound(s) in any syllable and the rime is the string of letters that follow, usually a vowel and final consonants. Not all words have an onset

**Phoneme:** smallest unit of sound in spoken language

**Alphabetic Knowledge:** the understanding of which letter and letter groups correspond to the sounds used in the English language

**Application of Alphabetic Knowledge:** using knowledge of letter-sound correspondence to decode words in isolation and in connected text

**Word Recognition:** accurate and efficient word reading

**Vocabulary Development:** the set of words that a child knows and uses.

Vocabulary is either receptive vocabulary or expressive vocabulary. Receptive vocabulary consists of the words that are understood when heard or read. Expressive vocabulary consists of words used when speaking or reading.

**Phrasing:** the grouping of words together as in normal speech, pausing appropriately between phrases and sentences

**Expression:** the ability to change one's voice to show feeling

**Adjusting pace:** reading at just the right speed; changing style and pace to suit the text

**Adjusting:** changing the style and pace of reading to suit the text; e.g., fiction and nonfiction

**Word Recognition:** accurate and efficient word reading

**Engagement with Text:** the selection and interaction with a variety of texts based on interest, enjoyment, and information.

**Word Recognition:** accurate and efficient word reading

**Print Concepts and Text Features:** the understanding that print carries meaning and that text features also support meaning

**Strategic Processing of Text:** any one of many simultaneous and coordinated thinking activities that go on in a reader's head to monitor comprehension

**Responding to Text:** using the background knowledge provided through instruction, combined with prior knowledge, to generate and answer questions, and summarize information

## Instruction

Oral language learning is enhanced through intentional instruction and modeling with opportunities for authentic practice.

Phonological and phonemic awareness skills require systematic and explicit instruction in the manipulation of phonological units (isolating, segmenting, and blending).

Systematic and explicit phonics instruction should occur in small and whole group settings and should intersect with the needs of learners.

Explicit instruction of new vocabulary words followed by exposure in meaningful contexts supports learners to understand the meaning of a word and when to use it.

The development of fluency requires explicit modeling and repeated oral and independent reading experiences.

The ongoing engagement with rich and varied text, shared through instruction and selected by learners, is critical to the reading trajectory from emergent to transitional readers.

### 4<sup>th</sup> and 5<sup>th</sup> Grade Less and More Chart

Less	More
<b>Word Recognition</b>	
Use of guessing strategies tied to the 3 cueing system (e.g., skip over the word, look at the picture etc...)	Use of phoneme-grapheme mapping (e.g. look at the word, slide through the sounds, look at the parts etc...)
	Use of prefixes, bases, roots and suffixes, and the big word strategy
	Teach advanced phonological awareness
Practice fluency using separate text focusing on reading speed	Practice fluency using content area text focusing on accuracy, automaticity, and prosody
<b>Language Comprehension</b>	
Teaching comprehension skills/strategies in isolation (e.g., main idea, predicting, etc...)	Use multi-strategy instructional approach while discussing and analyzing authentic text (e.g., preview, monitor comprehension, infer, and summarize)
Read texts on different topics each day	Read texts that relate to what is being studied in the content areas or texts on one topic for multiple weeks to build background knowledge and vocabulary.
	Teach text structure
Teaching vocabulary words in isolation using dictionary definitions.	Explicitly teach and provide multiple exposures of Tier 2 vocabulary. Use student friendly or created definitions. Examine the multiple meanings of words.  Teach morphological awareness (prefixes, bases, roots, and suffixes).
Teaching of grammar in isolation without a scope and sequence (worksheets).	Teach syntax when reading text (e.g., pronouns, prepositional phrases, and conjunctions)
Use of read alouds without a purpose to fill time	Use read alouds to strengthen background knowledge and vocabulary, and to discuss text to improve oral language.

#### The Big 3

1. Teach morphology.
2. Use content related text or text on the same topic for several weeks.
3. Teach multi-strategy comprehension approaches.

### 3<sup>rd</sup> Grade Less and More Chart

Less	More
<b>Word Recognition</b>	
Use of guessing strategies tied to the 3 cueing system (e.g., skip over the word, look at the picture etc...)	Use of phoneme-grapheme mapping (e.g. look at the word, slide through the sounds, look at the parts etc...)
	Use of prefixes, bases, and suffixes, and the big word strategy
	Teach advanced phonological awareness
Practice fluency using separate text focusing on reading speed	Practice fluency using content area text focusing on accuracy, automaticity, and prosody
<b>Language Comprehension</b>	
Teaching comprehension skills/strategies in isolation (e.g., main idea, predicting, etc...)	Use multi-strategy instructional approach while discussing and analyzing authentic text (e.g., preview, monitor comprehension, infer, and summarize)
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Use of read alouds without a purpose to fill time	Use read alouds to strengthen background knowledge and vocabulary, and to discuss text to improve oral language.

#### The Big 3

1. Teach phoneme-grapheme mapping to decode and spell words.
2. Use content related text or text on the same topic for several weeks.
3. Teach multi-strategy comprehension approaches.

# 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.**

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)

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.

Components taught as simultaneously as possible

PHONICS



# 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

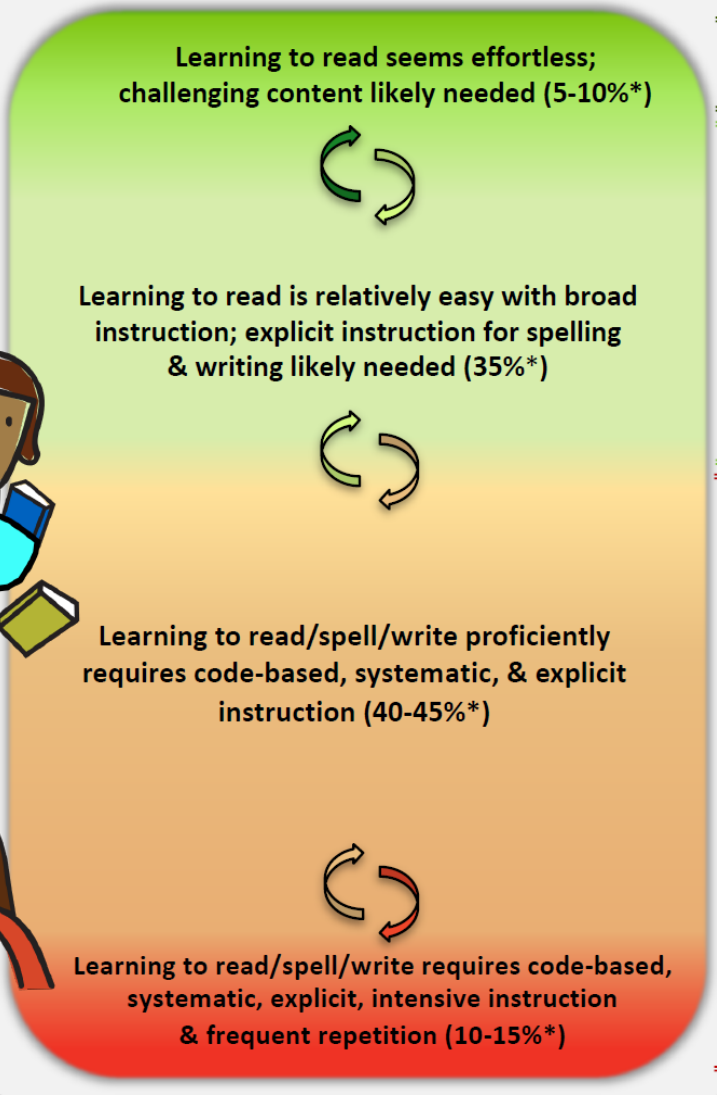
Orthographic mapping is not addressed

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

# The Ladder of Reading & Writing



Art by Dean Stanton



Extended learning & enrichment likely essential\*\*

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

A structured literacy approach likely essential\*\*



**Rich Oral Language Program**

**Structured Synthetic Phonics**

**Emphasis on Phonological & Phonemic Awareness**

**Decodable Reading Books**

**Emphasize Blending to Read**

**Emphasize segmenting to spell**

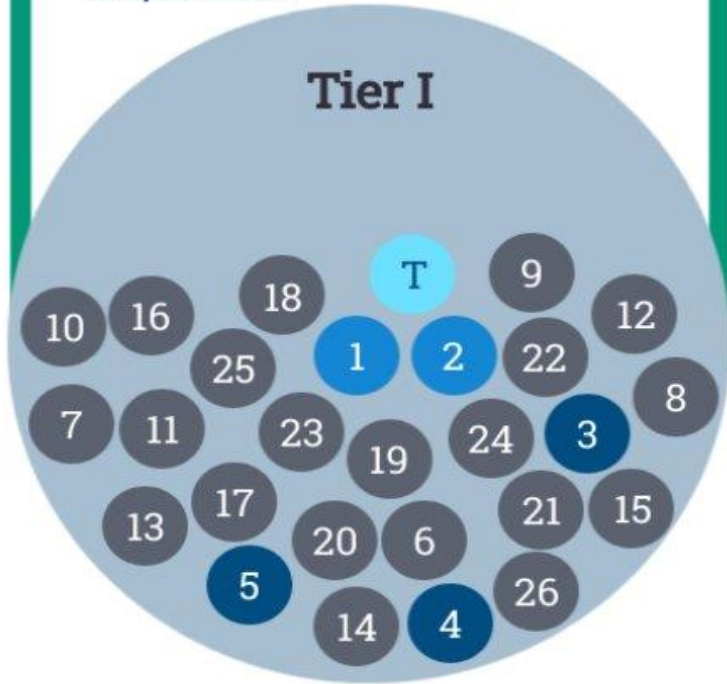
\* Percentages estimated based on available evidence  
 \*\* Terms defined and references at [www.nancyyoung.ca](http://www.nancyyoung.ca)



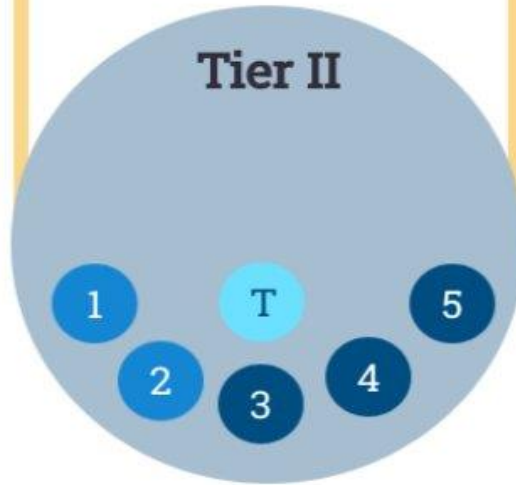
# Increasing Intensity Across Tiers of Instruction

Explicit, systematic instruction with an increase in intensity

- All Students - whole group and small group
- Explicit, systematic, strategy instruction using core reading program: phonological awareness, phonics, fluency, vocabulary, comprehension



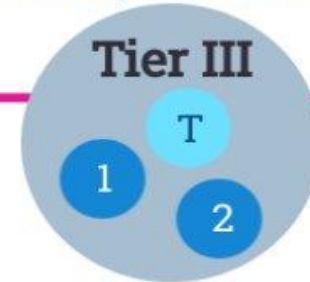
- Students below benchmark
- In addition to Tier 1
- More explicit and systematic
- Teach/review/practice targeted skills from Tier 1 instruction



## Key

- Teacher (light blue circle)
- Student (grey circle)
- Students who score below the screener's cut score (dark blue circle)
- Students in need of individualized instruction (medium blue circle)

- Students who do not respond to Tier 2 intervention
- Explicit, systematic delivery of highly structured evidence-based program to address individual needs
- Typically focuses on up to three essential components of reading



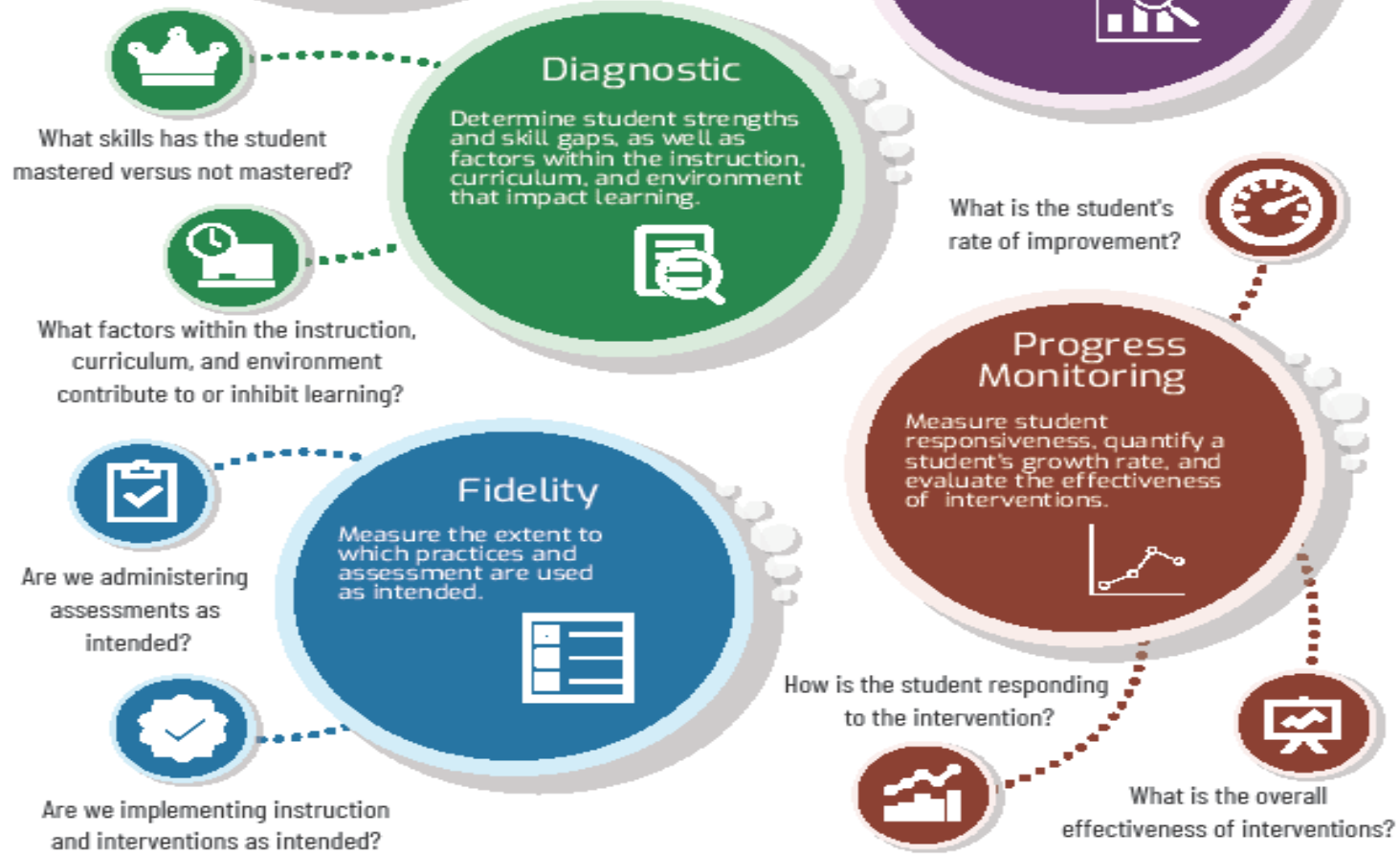
The research reported here is funded by an award to the Lead for Literacy Center from the U.S. Department of Education, Office of Special Education Programs (OSEP), Award #: H326L180002. The opinions expressed are those of the authors and do not represent views of OSEP or the U.S. Department of Education.

<https://leadforliteracy.org>

[Twitter.com/leadforliteracy](https://twitter.com/leadforliteracy)

[Facebook.com/leadforliteracy](https://facebook.com/leadforliteracy)

# DATA WITHIN MTSS



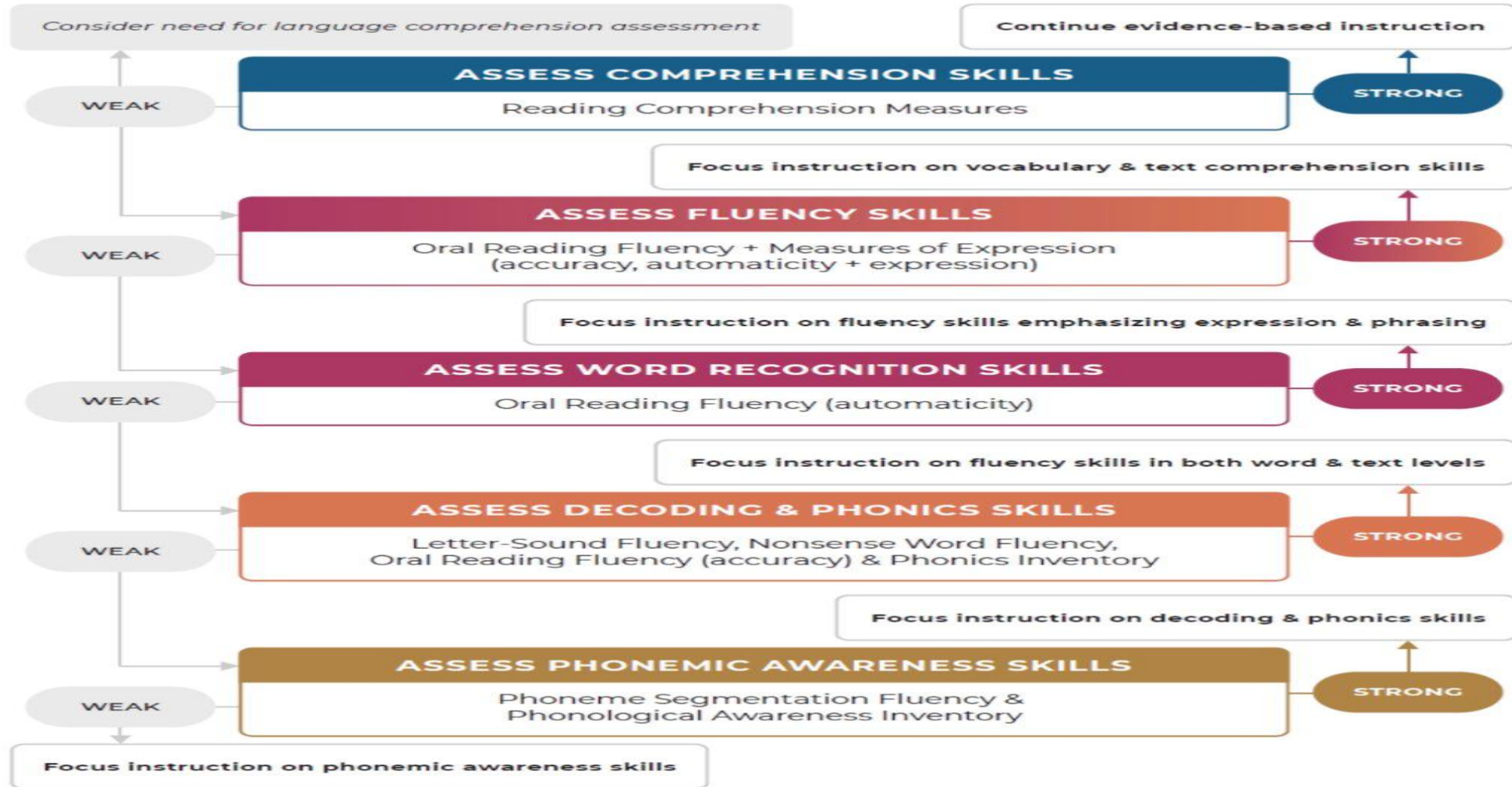
## CURRICULUM BASED MEASURES OF READING SKILLS – KINDERGARTEN

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

## CURRICULUM BASED MEASURES OF READING SKILLS – FIRST GRADE

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

## Quick Guide For Reading Assessment



To ensure that each BSCSD student graduates with a meaningful diploma, our focus on student learning, strong instruction, targeted instructional support including professional learning **MUST** begin with a belief that every student must be able to read at or above grade level

**Timely, Targeted, and Sustained Professional Development**

*To build knowledge and understanding of the curriculum and to continuously improve instructional practices in literacy*

**Explicitly Trained Principals**

To lead and support teachers' learning and to be able to identify and maximize critical instructional practices which support students' literacy development

**Structured Building-level Support**

To maximize instructional impact utilizing trained reading and sp. education teachers, speech therapists, librarians, & reading TAs

**Explicitly Trained Literacy Coaches**

To build, support, and model instructional practices which help to bring the literacy curriculum to life in K-5 classrooms

**Peer Support**

To continuously improve our instructional understandings and practices using in-building, cross-building, and other districts' teachers

**Community Support of Literacy**

To establish the priority of literacy support from local librarians, parents, and businesses through explicit and purposeful engagement

**Explicit Instruction  
to ensure that  
EVERY STUDENT  
is  
Reading  
At Or  
Above Grade  
Level**

**Knowledge-based, Rigorous Curriculum**

*That provides rich content (background knowledge) across multiple disciplines and critical skills needed to read at or above grade level*

**Structured Daily Schedule**

To maximize instructional time, provide professional learning support, and encourage collaborative planning

**Structured Interventions**

With well-trained intervention teachers to ensure that student skill deficits can be addressed as soon as possible thereby allowing students to achieve a full year's growth

**Aligned Supporting Materials**

That support and extend classroom instruction and professional learning

**Research Support**

Which explains the process of learning in general and learning to read in particular and assists us in decision-making

**Shared Building Goals**

To ensure that each student, regardless of their school, is provided a very similar set of learning experiences that support literacy development

# EXPLICIT INSTRUCTION

## DIRECT & ENGAGING TEACHING

EXPLICIT INSTRUCTION  
EFFECTIVE & EFFICIENT TEACHING



Instructional lessons that are interactive make learning visible so teachers can ensure students are learning.

ANITA ARCHER & CHARLES HUGHES

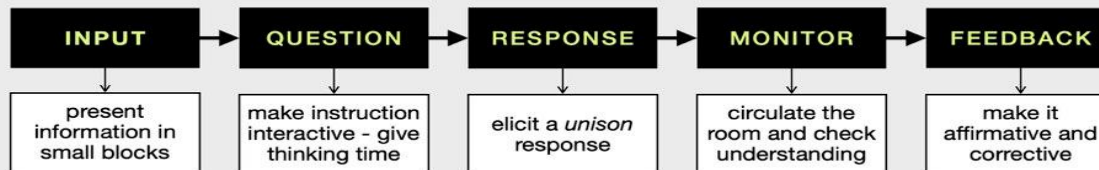
### DELIVERING INSTRUCTION

#### EXPLICIT DELIVERY SKILLS

Student attention and learning depends on both the design and delivery of an explicit lesson. To be truly effective, instruction must be interactive.

#### ESSENTIAL SKILLS

- Require frequent responses
- Monitor student performance
- Immediate corrective feedback
- Deliver lessons at a brisk pace

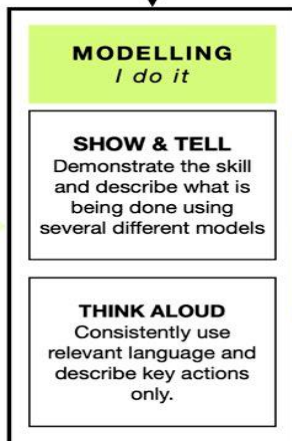


### LESSON OPENING

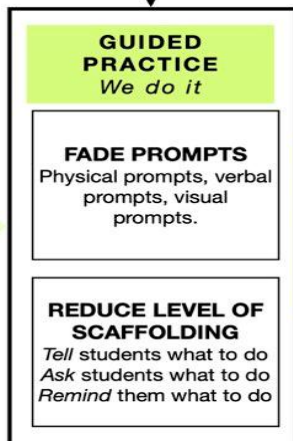


DEMONSTRATE UNDERSTANDING

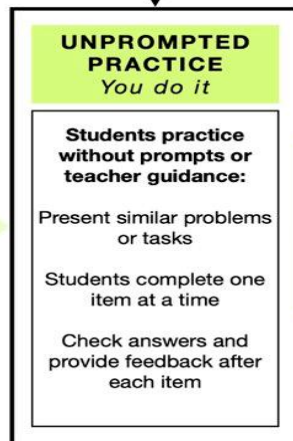
### LESSON BODY



DEMONSTRATE UNDERSTANDING

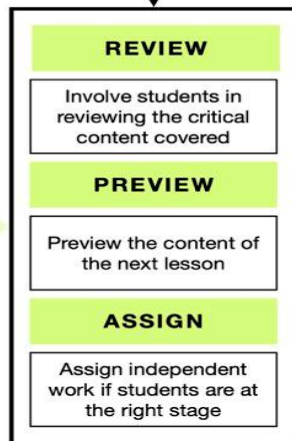


DEMONSTRATE UNDERSTANDING  
HIGH RATES OF ACCURACY



DEMONSTRATE UNDERSTANDING  
HIGH RATES OF ACCURACY

### LESSON CLOSING



THROUGHOUT THE LESSON: INVOLVE STUDENTS. MONITOR PERFORMANCE. PROVIDE FEEDBACK.

### ACTIVE PARTICIPATION

#### ELICIT FREQUENT RESPONSES

Active participation focuses on engaging all students by giving them the opportunity to respond with structured verbal, written or action responses. In the act of responding,

students are retrieving, rehearsing and practicing the information, concepts, skills, or strategies being taught. Elicit responses, by presenting a little information before stopping to ask for a response - this helps to make students accountable.



#### ACTION RESPONSES

- Hand Signals *put up number of fingers for answer*
- Acting Out *physically show solid, liquid, gas*
- Gestures



#### WRITTEN RESPONSES

- Mini-whiteboards
- Response Cards *yes/no, T/F*
- Hinge Questions
- Exit Tickets
- Written Summary



#### ORAL RESPONSES

- Choral Response *everyone say it together in unison*
- Think, Pair, Share
- Cold Calling
- Random Name Generator

### INDEPENDENT PRACTICE

#### BUILD FLUENCY

Research shows that in order to reach proficiency, both practice and feedback on the quality of that practice are necessary. Focus on skills, concepts, rules that are unknown to students and critical to academic performance. Embed deliberate practice sessions into your lessons, distribute practice sessions of a skill over time and test knowledge with frequent retrieval tasks.

#### DELIBERATE PRACTICE

ensure high-levels of accuracy then initiate immediate mass practice

#### DISTRIBUTED PRACTICE

space short practice sessions of a skill over time

#### RETRIEVAL PRACTICE

test knowledge in low stakes conditions and mix up strategies