

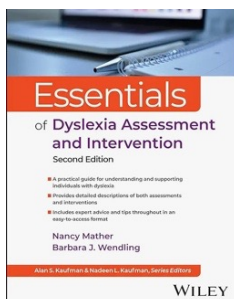
Using the WJ V to Diagnose Dyslexia



TASP 2025
Light The Way For A Brighter Future

Nancy Mather, Ph.D.

Disclosures



I am a co-author of:

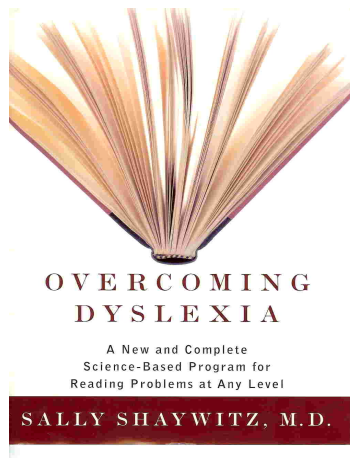
- WJ III, WJ IV, and WJ V
- *Essentials of Dyslexia: Assessment and Intervention (2nd ed.)*
(Mather & Wendling, 2024)

Topics

- Definitions of Dyslexia
- Reading and Writing Skills
- Linguistic Risk Factors
- Comorbidity
- RPI Interpretation
- WJ V Dyslexia Test Set
- Comparison Procedures
- Case studies integrated throughout



So, what are we going to talk about?



“The diagnosis of dyslexia is as precise and scientifically informed as almost any diagnosis in medicine” (p. 165).

Source: Shaywitz, S. (2003). *Overcoming dyslexia: A new and complete science-based program for reading problems at any level*. Alfred Knopf.

Diagnosis of Word Blindness

“With the possession of a knowledge of the symptoms, there is little difficulty in the diagnosis of congenital word-blindness when the cases are met with, since the general picture of the condition stands out as clear-cut and distinct as that of any pathological condition in the whole range of medicine” (p. 88).

Source: Hinshelwood, J. (1917). *Congenital word-blindness*. H. K. Lewis.

IDA Proposed New Definition (2025)

“Dyslexia is a specific learning disability characterized by difficulties in word reading—affecting accuracy, speed, or both—and/or spelling, that can vary depending on the written language system. These difficulties reflect performance at the low end of a continuum of literacy skill and occur despite evidence-aligned instruction that is effective for the individual’s peers. The cause and development of dyslexia involve the interplay of multiple biological and environmental influences. Phonological and/or morphological difficulties are common but not always present. Among the secondary consequences are limitations in language development and academic progress as well as challenges to psychological well-being and vocational opportunities. Although identification and targeted instruction are important at any age, language and literacy support before and during the early years of education can be particularly effective.”

IDA New Definition (2025)

“Dyslexia is a specific learning disability characterized by difficulties in word reading and/or spelling that involve accuracy, speed, or both and vary depending on the orthography. These difficulties occur along a continuum of severity and persist even with instruction that is effective for the individual’s peers. The causes of dyslexia are complex and involve combinations of genetic, neurobiological, and environmental influences that interact throughout development. Underlying difficulties with phonological and morphological processing are common but not universal, and early oral language weaknesses often foreshadow literacy challenges. Secondary consequences include reading comprehension problems and reduced reading and writing experience that can impede growth in language, knowledge, written expression, and overall academic achievement. Psychological well-being and employment opportunities may also be affected. Although identification and targeted instruction are important at any age, language and literacy support before and during the early years of education is particularly effective.”

The Term Dyslexia

“In the first half of this century the story of dyslexia has been one of decline and fall; in the second half it has culminated in a spectacular rise. From being a rather dubious term, dyslexia has blossomed into a glamorous topic; and rightly so, for with a prevalence of around 5% the condition is remarkably common” (Frith, 1999, p. 192).

Source: Frith, U. (1999). Paradoxes in the definition of dyslexia. *Dyslexia*, 5, 192–214.

Prevalence



Most researchers say the prevalence rate is between 5 and 8%.

Dyslexia is a neurobiological language disorder characterized by difficulties in word reading, spelling, and reading rate. These difficulties exist on a continuum from mild to severe. Dyslexia is highly heritable and often unexpected given the individual's other cognitive and academic abilities. The nature and developmental trajectory of dyslexia depends upon multiple genetic and environmental influences. Dyslexia is often associated with specific linguistic risk factors that affect the development of basic reading skills, reading fluency, and spelling. Although the most commonly observed linguistic risk factor in alphabetic languages is phonological processing, additional linguistic risk factors can include working memory, processing speed, rapid automatized naming, and/or orthographic processing. Dyslexia frequently co-occurs with other neurodevelopmental disorders, including developmental language disorder, dyscalculia, and ADHD. Secondary consequences can include weaknesses in reading comprehension, vocabulary, and written expression.

Adapted by N. Mather from:

Holden, C., Kirby, P., Snowling, M. J., Thompson, P. A., & Carroll, J. M. (2025). Towards a consensus for dyslexia practice: Findings of a Delphi study on assessment and identification. *Dyslexia*, 31: e1800. <https://doi.org/10.1002/dys.1800>

Consensus on the Definition of Dyslexia

- It is a neurobiological disorder that affects the development of basic reading skills, automaticity with sound–symbol connections, and spelling.
- It is often accompanied by specific weaknesses in linguistic risk factors that predict poor reading and spelling.
- It is a lifelong condition but effective interventions reduce the impact.
- Many other abilities are often intact and can even be advanced.
- It affects both motivation and self-esteem.

It is time to move away from a single deficit model that attributes dyslexia to a single cognitive deficit.



Neuropsychological Model

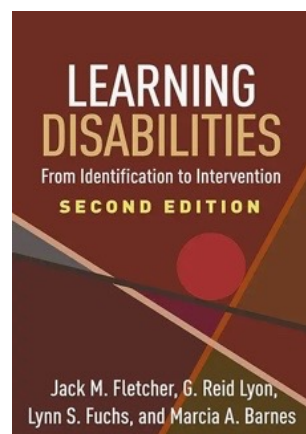
“The best neuropsychological model of dyslexia is one that includes multiple deficits, none of which is both necessary and sufficient to cause dyslexia” (p. 157).

“Associated cognitive difficulties in phonological awareness, rapid naming, nonverbal processing speed, verbal short-term memory, vocabulary, and/or other language skills are common” (p. 189).

Source: Pennington, B. F., McGrath, L. M., & Peterson, R. L. (2019). *Diagnosing learning disorders: From science to practice* (3rd ed.). Guilford.

Dyslexia: Correlates and Predictors

“This research shows that the primary academic skill deficits that lead to identification of dyslexia involve problems with the accuracy and fluency of decoding skills, and spelling. Cognitive research identifies reliable correlates and predictors of these marker variables, the most robust being phonological awareness. Additional cognitive processes involve rapid naming of letters and digits as well as working memory for phonological material” (p. 190).



Source: Fletcher, J. M., Lyon, G. R., Fuchs, L. S., & Barnes, M. A. (2019). *Learning disabilities: From identification to intervention* (2nd ed.). Guilford Press.

Multiple Deficit View

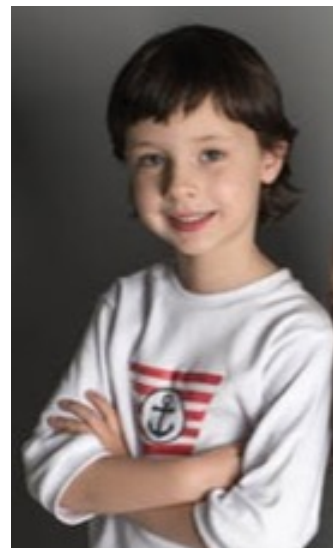
Adherence to a single deficit profile has limited utility; using only poor phonological awareness as a criterion for dyslexia would result in missing about one half of the cases.



Source: Pennington, B. F., Santerre-Lemmon, L., Rosenberg, J., MacDonald, B., Boada, R., Friend, A., Leopold, D. R., Samuelsson, S., Byrne, B., Willcutt, E. G., & Olson, R. K. (2012). Individual prediction of dyslexia by single versus multiple deficit models. *Journal of Abnormal Psychology*, 121(1), 212–224. <https://doi.org/10.1037/a0025823>

The first question:

Does the individual have difficulty reading words (accuracy, fluency) or spelling?



“Dyslexia is a specific learning disability in reading at the word level. It involves difficulty with accurate and/or fluent word recognition and/or decoding pseudowords.”

Source: Siegel, L. S., Hurford, D. P., Metsala, J. L., Ozeir, M. R., & Fender, A. C. (2025). Thoughts on the definition of dyslexia. *Annals of Dyslexia*. Advance Online Publication.
<https://doi.org/10.1007/s11881-025-00337-y>

We have some
children who
are very hard
to teach to
read.



**Dyslexia: Primary and Secondary Reading,
Spelling, and Writing Difficulties**

Primary Reading and Spelling Difficulties	Secondary Reading and Writing Difficulties
Letter-sound associations Letter names Letter sounds Basic reading skills Sight word identification Phonics (pseudowords) Reading fluency and rate Spelling	Reading comprehension Written expression

Reading Comprehension

“Individuals with problems in reading comprehension that are not attributable to poor word recognition have comprehension problems that are general to language comprehension rather than specific to reading” (p. 3).

Source: Spencer, M., Quinn, J. M., Wagner, R. K. (2014).
Specific reading comprehension disability: Major problem, myth,
or misnomer? *Learning Disabilities Research & Practice*, 29, 3-9.

WJ V ACH Basic Reading Skills and Reading Fluency Clusters

Basic Reading Skills

- Letter-Word Identification
- Word Attack

Reading Fluency

- Sentence Reading Fluency
- Word Reading Fluency

“Tests of accuracy and speed of word recognition and pseudoword reading are absolutely essential for understanding whether an individual is experiencing reading difficulties” (p. 26).

Source: Siegel, L. S., & Hurford, D. P. (2019). The case against discrepancy models in the evaluation of dyslexia. *Perspectives on Language and Literacy*, 45(1), 23-28.

“Dyslexia is a specific learning disability in reading at the word level. It involves difficulty with accurate and/or fluent word recognition and/or decoding pseudowords.”

Source: Siegel, L. S., Hurford, D. P., Metsala, J. L., Ozeir, M. R., & Fender, A. C. (2025). Thoughts on the definition of dyslexia. *Annals of Dyslexia*. Advance Online Publication. <https://doi.org/10.1007/s11881-025-00337-y>

WJ V ACH Phonics Knowledge and Spelling

Phoneme-Grapheme Knowledge

- Word Attack
- Spelling of Sounds

Spelling Skills

- Spelling
- Spelling of Sounds

Pseudoword Reading: Word Attack

“Application of standard English grapheme-phoneme correspondences (GPCs) will not achieve this for all words, but it will for the majority of such words (over 80% of monosyllabic words, for example), and therefore is a productive strategy that will assist learning to read. For that reason, it is important to assess just how well a child can produce GPC-governed responses when reading nonwords aloud.”

Source: Coltheart, M., & Ulicheva, A. (2018). Why is nonword reading so variable in adult skilled readers? *PeerJ*, 6:e4879.
<https://doi.org/10.7717/peerj.4879>.

Three Steps in Reading Pseudowords

- **First step:** Grapheme parsing - breaking apart a letter string into its constituent graphemes.
- **Second step:** Phoneme assignment - assigning phonemes to the graphemes.
- **Third step:** Blending the phonemes together to form a pseudoword.

Source: Coltheart, M., & Ulicheva, A. (2018). Why is nonword reading so variable in adult skilled readers? *PeerJ*, 6:e4879.
<https://doi.org/10.7717/peerj.4879>.

1. Grapheme
Parsing

th-o-ck

2. Phoneme
Assignment

/th//o//k/

3. Blending

thock

“This blending process will be very slow at first. It is, in fact, the most difficult step of the whole teaching procedure. But it is also the most fundamental step thereof. The mastery of the individual sounds is comparatively easy, but the ability to blend these sounds into recognizable words is often very difficult. But it will come,--it always has come. As an aid to this blending process it has been found very helpful to have some sort of movable letters... (p. 129).

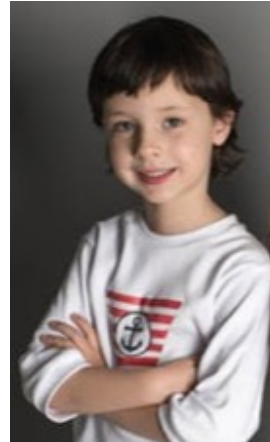
Source: Stanger, M. A., & Donohue, E. K. (1937). *Prediction and prevention of reading difficulties*. Oxford University Press.

**“Accuracy is FIRST,
FOREMOST, and FOREVER
the FOUNDATION of
FLUENCY.”**

Source: Hasbrouck, J., & Glaser, D. (2011). *Fluency: Understanding and teaching this complex skill: Training manual*. Gibson Hasbrouck & Associates.

The second question:

Does the individual have weaknesses in one or more specific linguistic risk factors?



The Virtual Test Library (WJ V VTL)

- There is no WJ V Oral Language Battery. Tests from the WJ IV Oral Language battery were moved into the WJ V COG, WJ V ACH, and the WJ V VTL.
- The WJ V VTL can be used with either the WJ V COG or the WJ V ACH.

WJ V VTL Selective Testing Table

■ Tests required to create the cluster listed

	CHC Broad Ability	Test	CHC Broad Ability Cluster					CHC Narrow Ability and Clinical Clusters		
			Phonological Awareness (Ga)	Phonological Manipulation (Ga)	Auditory Memory Span (Gwm)	Reading (Gs, Gr)	Math (Gs, Gr)	Single Tests		
Virtual Test Library	Ga, Gwm	Nonsense Word Repetition								■
	Gs, Gr	Rapid Picture Naming				■				
	Gwm	Animal-Number Sequencing								■
	Ga	Sound Reversal								■
	Gs, Gr	Rapid Letter Naming				■				
	Gwm, Gf	Understanding Directions								■
	Ga	Sound Blending	■							
	Gr, Ga	Rapid Phoneme Naming				■				
	Gwm	Memory for Words			■					
	Ga	Segmentation	■							
	Gs, Gr	Rapid Number Naming							■	
	Gwm	Sentence Repetition			■					
	Ga	Sound Deletion		■						
	Gs, Gv	Rapid Quantity Naming							■	
	Ga	Sound Substitution		■						

WJ V Virtual Test Library (WJ V VTL)

Includes measures of specific linguistic risk factors:

- Phonological Awareness
- Phonological Manipulation
- Rapid Automated Naming
- Auditory Memory Span/Working Memory

Phonological Awareness

Sound Blending
Segmentation

Phonological Manipulation

Sound Deletion
Sound Substitution
Sound Reversal (single test)

Rapid Automated Naming

Rapid Picture Naming
Rapid Letter Naming
Rapid Phoneme Naming
Rapid Number Naming
Rapid Quantity Naming

Auditory Memory Span/Working Memory

Memory for Words
Sentence Repetition
Nonsense Word Repetition (single test)

Animal-Number Sequencing (single test)
Understanding Directions (single test)

Phonological Processing

When to Administer Blending and Segmentation

- If Word Attack (reading phonically regular nonsense words) and Spelling of Sounds are average or above average: **no need to administer Blending and Segmentation.**
- If Word Attack is below average: administer Blending
- If Spelling of Sounds is below average: administer Segmentation.

“The letters of a word are like beads on a string, but the sounds are more like a cascading waterfall” p. 27).



Source: Seidenberg, M. (2017). *Language at the speed of sight*. Basic Books.

WJ V Phonological Manipulation Tests

- *Sound Deletion: say cart without /t/
- *Sound Substitution:
 - Initial: Change the /s/ in sun to /f/
 - Final: Change the /t/ in cat to /b/
 - Medial: Change the /i/ in hit to /a/
- Sound Reversal: say the sounds in “enough” backward

* Phonological Manipulation cluster

Phonemic Manipulation

Several of the VTL tests primarily measure phonological awareness (Ga) but also require working memory (Gwm): Sound Substitution, Sound Deletion, and Sound Reversal. These tests all involve manipulating the sounds within words, such as changing a sound in a word, deleting a sound from a word, or saying the sounds in a word *tap* in reversed order (*pat*). The examinee must hold the information in memory while substituting, deleting, or reversing phonemes to make a different word. These more complex phonological manipulation tasks are stronger predictors of reading than are less complex tasks, such as blending and segmentation (Dorofeeva et al., 2020; Kilpatrick, 2012).

Sources: Dorofeeva, S. V., Laurinavichyute, A., Reshetnikova, V., Akhutina, T. V., Tops. W., & Dragoy, O. (2020). Complex phonological tasks predict reading in 7 to 11 years of age typically developing Russian children. *Journal of Research in Reading*, 43(4), 516-535. <https://doi.org/10.1111/1467-9817.12327>

Kilpatrick, D. (2012). Phonological segmentation assessment is not enough: A comparison of three phonological awareness tests with first and second graders. *Canadian Journal of School Psychology*, 27(2), 150–165. <https://doi.org/10.1177/0829573512438635>

Denise
Grade 9

Phonological Awareness (Ga)

	Development		Proficiency		Relative Standing	
	W Score (95% Confidence Band)	Age Equivalent	W Difference Score	Relative Proficiency Index	Standard Score (95% Confidence Band)	Percentile Rank (95% Confidence Band)
Phonological Awareness (Ga)	518 (509-528)	>26y	4	93/90	103 (94-112)	59 (34-80)
Test Name	W Score (95% Confidence Band)	Age Equivalent	W Difference Score	Relative Proficiency Index	Standard Score (95% Confidence Band)	Percentile Rank (95% Confidence Band)
Sound Blending	509 (499-519)	12y10m	-7	81/90	94 (84-103)	34 (14-58)
Segmentation	527 (511-543)	>27y	14	98/90	111 (98-123)	76 (45-94)

Phonological Manipulation (Ga)

	Development		Proficiency		Relative Standing	
	W Score (95% Confidence Band)	Age Equivalent	W Difference Score	Relative Proficiency Index	Standard Score (95% Confidence Band)	Percentile Rank (95% Confidence Band)
Phonological Manipulation (Ga)	502 (494-510)	10y7m	-14	65/90	85 (76-93)	15 (5-33)
Test Name	W Score (95% Confidence Band)	Age Equivalent	W Difference Score	Relative Proficiency Index	Standard Score (95% Confidence Band)	Percentile Rank (95% Confidence Band)
Sound Deletion	502 (489-514)	10y3m	-15	64/90	84 (71-97)	15 (3-43)
Sound Substitution	503 (492-513)	10y11m	-14	66/90	85 (73-96)	15 (3-41)

Assessment Guidelines

Consider the level of development and the difficulty level of the task:

- Initial sound, final sound, and then medial vowel sound
- Compound words, syllables, phonemes
- Sound blending and segmentation vs. phoneme manipulation tasks (involves working memory)

Intervention Implications

If low, recommend direct instruction in:

- Sound blending
- Segmentation
- Start the instruction with phonemes (use larger units if they cannot blend or segment phonemes)

Instruction using phonemic manipulation tasks may promote orthographic mapping (forming the connections between the speech sounds and print).

Overview of WJ V Rapid Naming Tests



- Tests of cognitive and linguistic fluency.
- The tests measure naming facility, an aspect of processing speed, and retrieval fluency.
- The tasks are timed and require the examinee to look at stimuli on the iPad and then name the stimuli as quickly as possible.

RAN General Administration Points

- All stimuli are presented to the examinee on the iPad.
- Each test has a **60-second time limit**.
- Each test starts with a Sample Item or Items, provides corrective feedback if an error is made, and if an error is made a second trial is given.
- If the examinee does not meet the Continuation requirements after the Sample Item(s), the test is discontinued.

What Do Rapid Naming Tests Appear to Measure?

1. Ability to sustain attention to identify and name the symbols
2. Ability to discriminate among the symbols rapidly
3. Ability to retrieve verbal labels rapidly
4. Ability to articulate words rapidly

Research Findings regarding Rapid Automatized Naming (RAN)

(a) RAN letters and then numbers are the strongest predictors of both reading and spelling.

(b) RAN is distinct from phonological awareness.

(c) the contribution of RAN is larger for younger readers and readers with more severe reading disabilities.

(d) pause time is significantly correlated with reading accuracy and fluency, whereas articulation time is not.

(e) RAN is more highly related to speeded measures of reading than to accuracy measures.

(f) RAN is a good predictor of orthographic processing (e.g., reading exception words) but not phonic skills.

Dr. Martha Denckla

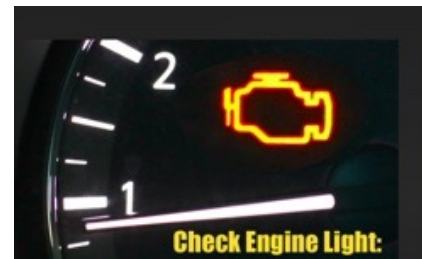
The Visual-Verbal Highway



Slow word perception

See it... Say it circuit

“Because RAN ability depends on a large number of perceptual and cognitive factors, one can think of RAN as the ‘check engine light’ that indicates a problem but doesn’t reveal the exact cause” (p. 26).



Source: Norton, E. (2020). What educators need to know about Rapid Automatized Naming (RAN). *Learning Difficulties Australia Bulletin*, 52(1), 25–28.

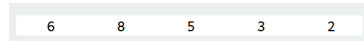
Five WJ V Rapid Naming Tests



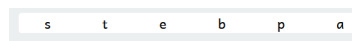
- Rapid Picture Naming



- Rapid Number Naming



- Rapid Letter Naming



- Rapid Phoneme Naming



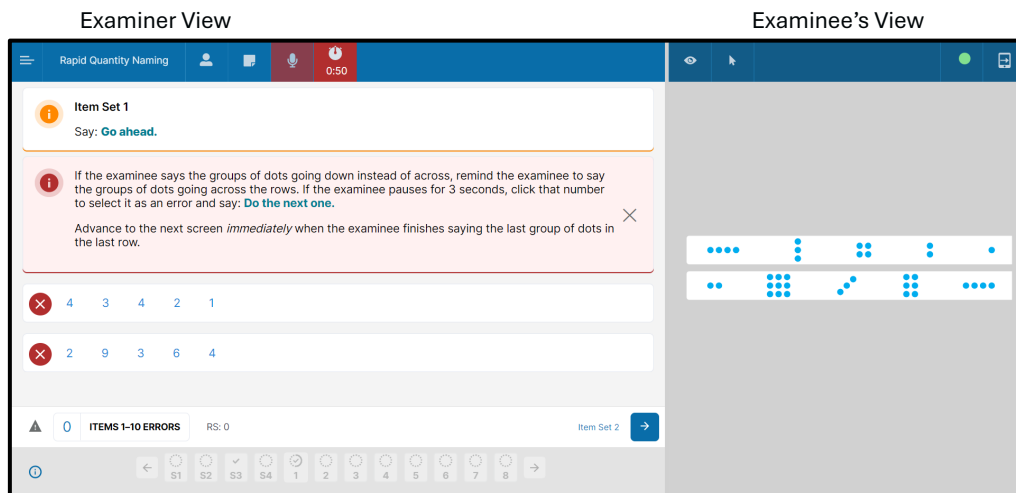
- Rapid Quantity Naming



Justin, Age 7-5

	Development		Proficiency		Relative Standing	
Test Name	W Score (95% Confidence Band)	Age Equivalent	W Difference Score	Relative Proficiency Index	Standard Score (95% Confidence Band)	Percentile Rank (95% Confidence Band)
Rapid Phoneme Naming	480 (467-492)	<4y0m	-17	57/90	78 (62-94)	7 (1-35)

Rapid Quantity Naming



Predictors of SLD in Reading and Math

Rapid Picture Naming

Rapid Letter Naming

Rapid Phoneme Naming → Reading

Rapid Number Naming

Rapid Quantity Naming → Mathematics

RAN and Mathematics

- Rapid automatized naming (RAN) is significantly correlated with mathematics performance with an average correlation coefficient of $r = .37$.
- The meta-analysis, including data from 38 studies, revealed that RAN is a stronger predictor of arithmetic calculation tasks, particularly single-digit calculations and math fluency tasks, compared to general math achievement and multi-digit calculations.
- Useful an early predictor of mathematical skills, especially arithmetic fluency.
- The study also found that both alphanumeric and non-alphanumeric RAN tasks are equally strong predictors of mathematics performance

Source: Koponen, T., Georgiou, G., Salmi, P., Leskinen, M., & Aro, M. (2017). A meta-analysis of the relation between RAN and mathematics. *Journal of Educational Psychology*, 109(7), 977–992. <https://doi.org/10.1037/edu0000182>

Intervention Implications

Ensure automaticity with the stimuli, before administering a RAN test.

When RAN is slow, intervention is usually needed for reading rate and fluency.

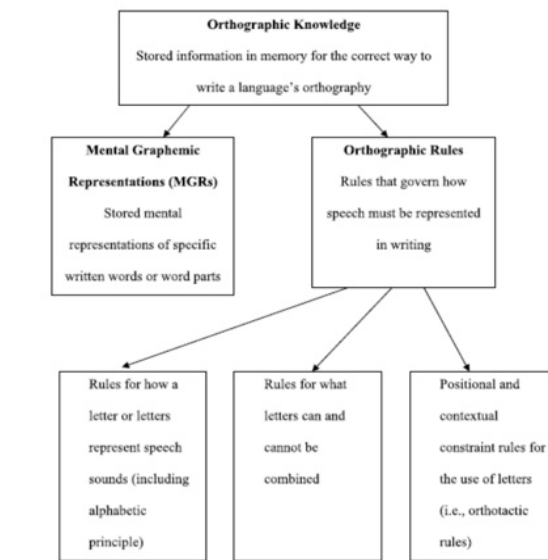
When rate is slow as well, a student will usually require extended time on exams and high-stake tests.

Auditory Working Memory

- Ability to hold information in memory and rearrange it.
- Related to attention and executive functioning.
- Affects many aspects of academic performance.
- When low, specific accommodations are often needed.

Definitions Related to Orthography

- **Orthography:** the writing system of a language (includes spelling, punctuation, capitalization)
- **Orthographic Processing:** the brain's ability to recall letter orientation, spelling patterns, and words with both accuracy and speed
- **Visual Orthographic Image (VOI):** recall of individual letters, word parts, and words



Source: Apel, K. (2011). What is orthographic knowledge? *Language, Speech, and Hearing Services in Schools*. 42(4), 592-603. [https://doi.org/10.1044/0161-1461\(2011/10-0085](https://doi.org/10.1044/0161-1461(2011/10-0085)

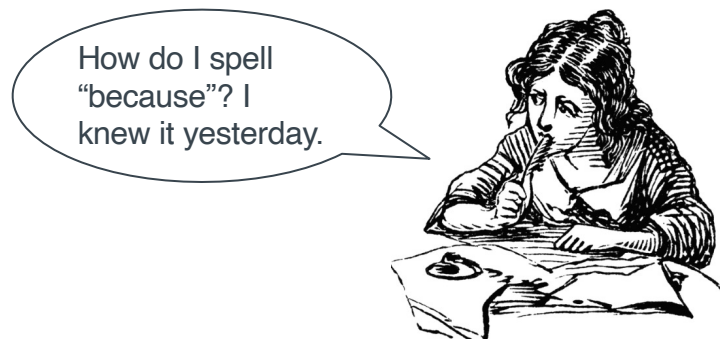
Orthotactic Knowledge

Knowledge of the permissible patterns of letter combinations in written words

“...the term orthotactic rules, or orthotactic knowledge, refers to an understanding of specific orthographic rules that place positional and contextual constraints on certain letters or letter combinations (e.g., the letter k cannot precede the letter o in the initial word position; the letter u is rarely combined with the letters v or w.”

Source: Apel, K. (2011). What is orthographic knowledge? *Language, Speech, and Hearing Services in Schools*, 42(4), 592–603. [https://doi.org/10.1044/0161-1461\(2011/10-0085](https://doi.org/10.1044/0161-1461(2011/10-0085)) (p. 594)

Unstable Word Images



Visual orthographic images (VOI)

“When a reader who has a limited sight word vocabulary is asked which word looks right, the response is likely to be, ‘Words never *look right* to me’ ” (p. 35).

Source: Willows, D. M., & Terepocki, M. (1993). The relation of reversal errors to reading disabilities. In D. M. Willows, R. S. Kruk, & E. Corcos (Eds.), *Visual processes in reading and reading disabilities* (pp. 31-56). Lawrence Erlbaum.

Orthographic processing is also a linguistic risk factor. Findings from a recent meta-analysis indicated that individuals with dyslexia have a deficit in orthographic knowledge that is as large as that of phonological awareness and rapid automatized naming (RAN).

Source: Georgiou, G. K., Martinez, D., Vieira, A. P. A., & Guo, K. (2021). Is orthographic knowledge a strength or a weakness in individuals with dyslexia? Evidence from a meta-analysis. *Annals of Dyslexia*, 71, 5–27.
<https://doi.org/10.1007/s11881-021-00220-6>

Poor Orthographic Processing and Reading

- Has trouble remembering sight words
- Sounds out words even after many exposures
- Confuses similar-looking letters and words (e.g., b and d, on and no, who and how)
- Often has slow word perception and reading rate into adulthood

Poor Orthographic Processing and Spelling

- Has difficulty learning how to form letters
- Reverses letter and numbers past the age of 7
- Has trouble copying from the board
- Spells words the way they sound, not the way they look
- Spells the same word inconsistently
- Violates rules of English spelling
- Has poor spelling into adulthood
- Often has a discrepancy between spelling and ideation

Orthographic Awareness

WJ V Letter-Pattern Matching

- Provides a measure of perceptual speed and orthographic processing.
- Good readers and spellers will quickly note the matching pair which is a common English spelling pattern (e.g., th, oa); the others are not (e.g., ao, hx).

f	Ø	Ø	
h	h	b	
h	t	h	x
h	h	bk	fv
h	nb	h	ms
h	fp	qw	h uK

Further Considerations

Has the student received reading and spelling instruction for at least one year?

Was the instruction systematic?

Is English the student's first language?

Hereditary Factors

Strong converging evidence indicates that:

1. Dyslexia has a genetic basis but there is not one specific gene for reading.
2. Family history is a key risk indicator.
3. If one parent is affected, there is a 34 to 54% chance, the child will have dyslexia.

Sources:

Lasnick, O., Feng, J., Quirion, A., Hart, S., & Hoeft, F. (2022). The importance of family history in dyslexia. *Reading League Journal*, 3(2), 35-40.

Snowling, M. J., & Melby-Lervåg, M. (2016). Oral language deficits in familial dyslexia: A meta-analysis and review. *Psychological Bulletin*, 142, 498–545



Family history is one of the strongest risk factors for developing dyslexia. Having a parent who has dyslexia increases the likelihood that a child will have dyslexia, and if both parents have dyslexia, the probability increases even more.

At-Risk Indicators

Two questions you always want to ask parents:

Did anyone in your family have difficulty learning to read or spell?

Did your child have difficulty with speech or language development?

Comorbidity

High comorbidity (two or more disorders that co-occur in the same person) exists between dyslexia and other learning disorders. 40% of children with dyslexia will have another learning disorder as well.

Source: Moll, K., Snowling, M. J., & Hulme, C. (2020). Introduction to the special issue “Comorbidities between reading disorders and other developmental disorders.” *Scientific Studies of Reading*, 24(1), 1–6.
<https://doi.org/10.1080/10888438.2019.1702045>

Three Most Common Comorbid Disorders

- Mathematics (Dyscalculia)
- ADHD
- Developmental Language Disorder



Dysgraphia

Dysgraphia is a disorder of writing ability at any stage, including problems with letter formation/legibility, letter spacing, spelling, fine motor coordination, rate of writing, grammar, and composition. (Chung et al., 2020)

Source: Chung, P. J., Patel, D. R., & Nizami, I. (2020). Disorder of written expression and dysgraphia: Definition, diagnosis, and management. *Translational Pediatrics*, 9(Suppl 1), S46–S54.
<https://doi.org/10.21037/tp.2019.11.01>

WJ V Letter Writing Fluency



- A test of alphabet writing
- A measure of letter writing automaticity, requires processing speed, fine motor skills, letter knowledge
- The task has two items, each with a 30 second time limit. The first item requires the examinee to write the alphabet from memory. The second item requires the examinee to copy the alphabet from a model.

Several early research studies documented the importance of automatic letter writing for writing development, both with typically developing writers, as well as individuals with dysgraphia (Abbott & Berninger, 1993; Graham et al., 1997). More recent reviews have continued to support the impact of slow letter writing fluency and handwriting speed on the quality of composition (Berninger, 2020; Kent & Wanzek, 2016; Ray et al., 2022).

Sources:

Abbott, R., & Berninger, V. W. (1993). Structural equation modeling of relationships among developmental skills and writing skills in primary- and intermediate-grade writers. *Journal of Educational Psychology*, 85(3), 478–508.

<https://doi.org/10.1037/0022-0663.85.3.478>

Berninger, V. (2020). *Revised User Guide for Process Assessment of the Learner II for Reading and Writing (PAL II RW)*. Pearson.

Graham, S., Berninger, V. W., Abbott, R. D., Abbott, S. P., & Whitaker, D. (1997). Role of mechanics in composing of elementary school students: A new methodological approach. *Journal of Educational Psychology*, 89, 170–182.

<https://doi.org/10.1037/0022-0663.89.1.170>

Kent, S. C., & Wanzek, J. (2016). The relationship between component skills and writing quality and production across developmental levels. *Review of Educational Research*, 86(2), 570–601. <https://doi.org/10.3102/0034654315619491>

Ray, K., Dally, K., Rowlandson, L. Tam, K. L., & Lane, A. E. (2022). The relationship of handwriting ability and literacy in kindergarten: A systematic review. *Reading and Writing*, 35, 1119–1155. <https://doi.org/10.1007/s11145-021-10224-8>

Woodcock-Johnson V Tests of Achievement

CLUSTER/Test Name	Development		Proficiency		Relative Standing	
	W Score (95% Confidence Band)	Age Equivalent	W Difference Score	Relative Proficiency Index	Standard Score (95% Confidence Band)	Percentile Rank (95% Confidence Band)
BRIEF READING (Grw)	484 (477-492)	8y10m	-9	77/90	94 (88-99)	34 (22-47)
	-	-	Limited to Average	Limited to Average	Average	Average
Letter-Word Identification	473 (463-483)	8y6m	-19	53/90	90 (84-95)	25 (15-37)
	-	-	Limited	Limited	Average	Average
Passage Comprehension	496 (486-506)	9y8m	1	91/90	101 (89-113)	54 (28-81)
	-	-	Average	Average	Average	Average

Peer comparison scores (SS, PR): relative standing in a reference group RPI: How close a person comes to meeting a set level of proficiency on a task
--

***W* difference Scores and Associated RPIs**

W difference = + 10 = 96/90

W difference = 0 = 90/90

W difference = - 10 = 75/90

The RPI describes the probability that a person will be successful on a task at the level of difficulty at which average peers are 90% successful.

W Diff	RPI		W Diff	RPI
>28	100/90		-1	89/90
+28	99/90		-2	88/90
+20	99/90		-3	87/90
+15	98/90		-4	85/90
+14	98/90		-5	84/90
+13	97/90		-6	82/90
+12	97/90		-7	81/90
+11	97/90		-8	79/90
+10	96/90		-9	77/90
+9	96/90		-10	75/90
+8	96/90		-15	63/90
+7	95/90		-20	50/90
+6	95/90		-24	39/90
+5	94/90		-30	25/90
+4	93/90		-35	16/90
+3	93/90		-40	10/90
+2	92/90		-45	6/90
+1	91/90		-68	1/90
0	90/90		<68	0/90

Why do we sometimes find marked differences between the SS and the RPI?

CLUSTER/Test	SS	RPI	Proficiency
Word Attack	80	16/90	very limited
Letter-Word Identification	86	32/90	limited
WORKING MEMORY	86	54/90	limited

Uniqueness of Scores

RELATIVE PROFICIENCY INDEX (RPI)

90% proficiency on similar tasks that average individuals in the comparison group (age or grade) would have 90% success.

10/90 Examinee would have 10% proficiency when average age peers would have 90% proficiency

Word Attack	<u>Grade 2.9</u>	<u>College 16.9</u>
PR/SS	5/75	5/75
GE	1.1	6.3
RPI	10/90	68/90

Understanding Differences Between Scores: RPI and SS

How can someone be proficient on a task (average RPI) when their relative standing is low (SS in below average range)?

RPI: 81/90 (average proficiency)
SS: 71 (low relative standing)

How can someone have limited proficiency on a task (below average RPI) when their relative standing is average (SS in average range) ?

RPI: 59/90 (limited proficiency)
SS: 86 (average relative standing)

RPI: 81/90 (average proficiency)
SS: 71 (low relative standing)

Age 13-0 examinee on
Retrieval Fluency

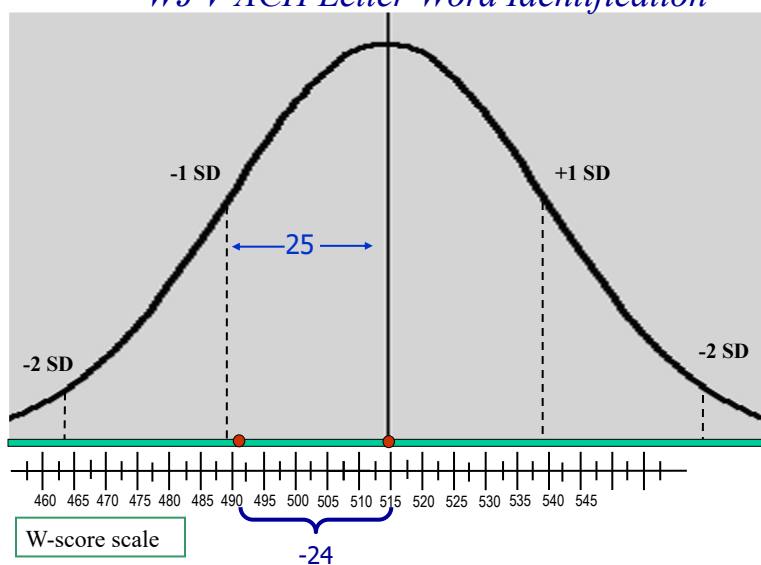
- Typically happens on abilities acquired early in life that do not change much over time - flat growth curve
- Narrow Standard Deviation – people are less variable

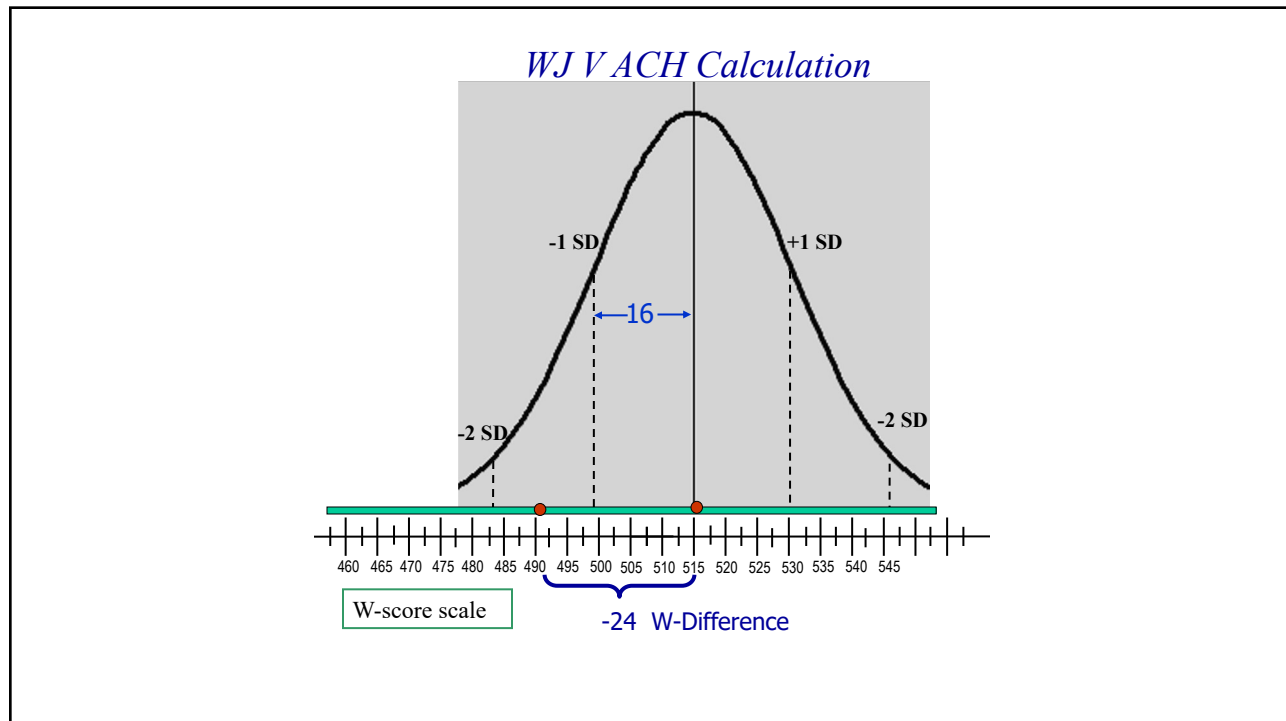
RPI: 59/90 (limited proficiency)
SS: 86 (average relative standing)

13-0 examinee on
Math Calculation

- Typically happens on abilities that are still rapidly changing - steep growth curve
- Wider Standard Deviation – people are more variable

WJ V ACH Letter-Word Identification





W difference of -24

Letter-Word Identification

RPI 39/90

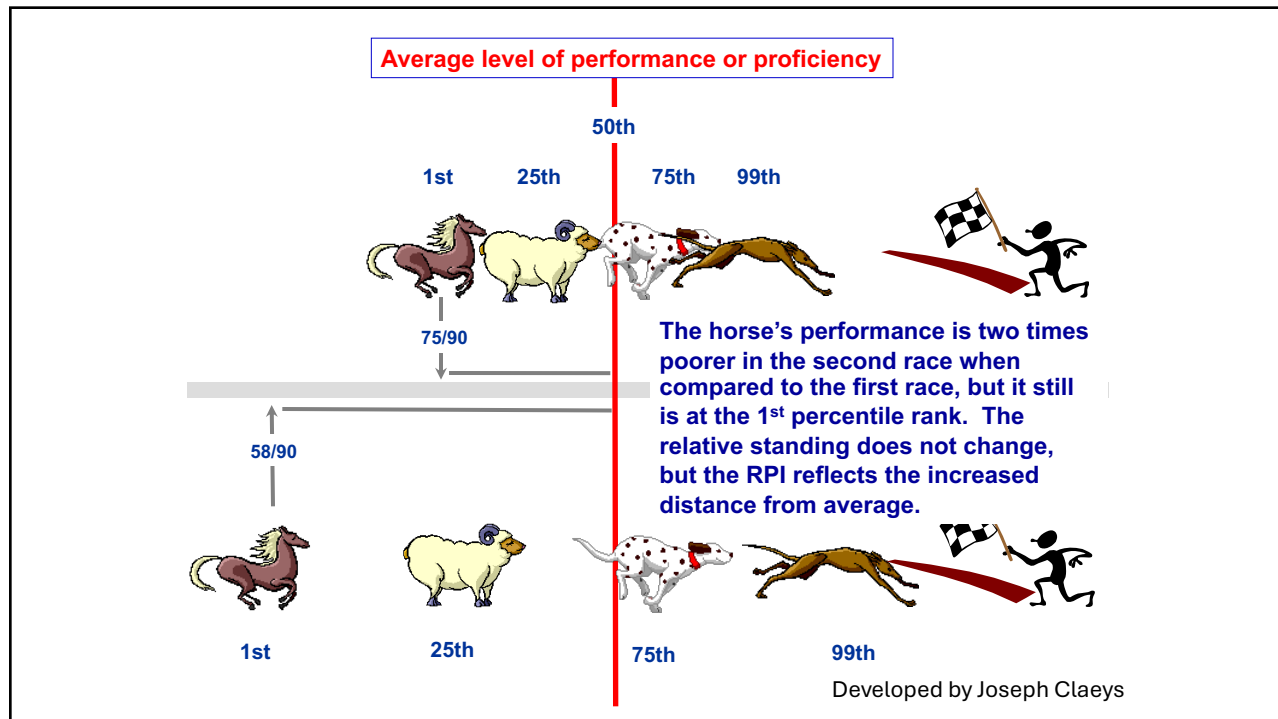
SS 86

Calculation

RPI 39/90

SS 76

Different standard deviations result in different standard scores but the RPI is not affected or related to the standard deviation.



Criterion-Referenced Interpretation of RPI Scores

W Diff Values	Reported RPIs	Proficiency	Implications
+31 & above	100/90	very advanced	extremely easy
+14 to +30	98/90 - 100/90	advanced	very easy
+7 to +13	95/90 - 98/90	average to adv	easy
-6 to +6	82/90 - 95/90	average	manageable
-13 to -7	67/90 - 82/90	limited to avg	difficult
-30 to -14	24/90 - 67/90	limited	very difficult
-50 to -31	3/90 - 24/90	very limited	extremely diff
-51 & below	0/90 - 3/90	negligible	impossible

Schrank, F.A., & Woodcock, R.W. (2003). *Report Writer for the WJ III*. Rolling Meadows, IL: Riverside.

For Tim's performance on Word Attack, which statement is more meaningful for addressing his educational needs?

- Tim's ability to sound out pseudowords is in the low to low average range.
- Only 10% of students Tim's age scored as low or lower than he did on word attack skills.
- When Tim tries to sound out pseudowords, he's likely to be about 16% successful, whereas others his age would be 90% successful. His word attack skills are very limited.

Dyslexia Test Set

- A preloaded Test Set that addresses both screening and more comprehensive evaluation
- Contains the most relevant tests from the WJ V ACH and WJ VTL for assessing dyslexia
- Can add in additional tests as well as tests from the WJ V COG if desired

Dyslexia Test Set - Tests



- Letter-Word Identification
- Word Attack
- Sentence Reading Fluency
- Word Reading Fluency
- Sound Blending
- Segmentation
- Sound Deletion
- Sound Substitution
- Spelling of Sounds
- Nonsense Word Repetition

- Rapid Picture Naming
- Rapid Letter Naming
- Rapid Phoneme Naming
- Memory for Words
- Sentence Repetition
- Spelling
- Picture Vocabulary
- Academic Vocabulary
- Oral Reading

Riverside Insights



Dyslexia Test Set

Basic Reading Skills and Reading Fluency

Phonics Knowledge and Spelling*

Linguistic Risk Factors

Vocabulary

Single Tests

* The Phonics Knowledge category also includes Word Attack

Test Name	WJ V ACH	WJ V ACH - Ext	WJ V VTL
Letter-Word Identification	X		
Word Attack	X		
Sentence Reading Fluency	X		
Word Reading Fluency	X		
Spelling of Sounds		X	
Spelling	X		
Sound Blending			X
Segmentation			X
Sound Deletion			X
Sound Substitution			X
Rapid Picture Naming			X
Rapid Letter Naming			X
Rapid Phoneme Naming			X
Memory for Words			X
Sentence Repetition			X
Picture Vocabulary	X		
Academic Vocabulary		X	
Oral Reading		X	
Nonsense Word Repetition			X

Dyslexia Test Set

	Cluster	Test Name	ACH-Std	ACH-Ext	VTI	Minimum Recommended Age: Tests	Minimum Recommended Age: Clusters
Basic Reading Skills and Reading Fluency	Basic Reading Skills	Letter-Word Identification (Grw)	X			4	5
		Word Attack (Grw, Ga) ^a	X			5	
	Reading Fluency	Sentence Reading Fluency (Gs, Grw)	X			5	6
		Word Reading Fluency (Gs, Grw)	X			6	
Phonics Knowledge and Spelling	Phoneme-Grapheme Knowledge	Word Attack (Grw, Ga) ^a	X			5	6
		Spelling of Sounds (Ga, Grw) ^a		X		6	
	Spelling Skills	Spelling (Grw)	X			5	6
		Spelling of Sounds (Ga, Grw) ^a		X		6	
Linguistic Risk Factors	Phonological Awareness	Sound Blending (Ga)			X	4	4
		Segmentation (Ga)			X	4	
	Phonological Manipulation	Sound Deletion (Ga) ^b			X	5	6
		Sound Substitution (Ga) ^b			X	6	
	RAN-Reading	Rapid Picture Naming (Gs, Gr)			X	4	6
		Rapid Letter Naming (Gs, Gr)			X	4	
		Rapid Phoneme Naming (Gr, Ga)			X	6	
	Auditory Memory Span	Memory for Words (Gwm)			X	4	4
		Sentence Repetition (Gwm)			X	4	
Vocabulary	Vocabulary	Picture Vocabulary (Gc)	X			4	5
		Academic Vocabulary (Gc)		X		5	
	Single Tests	Oral Reading (Grw)		X		6	
		Nonsense Word Repetition (Ga, Gwm)			X	4	

^aWord Attack and Spelling of Sounds each contribute to two clusters.
^bSound Deletion is recommended for examinees age 5 to 11, and Sound Substitution is recommended for examinees age 6 to 12. The platform will, however, allow the user to administer these two tests to examinees outside the recommended age ranges.

- Although their skills differ, students with dyslexia have poorer pseudoword repetition skills when compared to age peers and reading-level controls.
- Variability in performance is predicted by oral language skills.
- Students with combined dyslexia and developmental language disorders have the most severe pseudoword repetition impairments.

Source: Melby-Lervag, M., & Lervag, A. (2012). Oral language skills moderate nonword repetition skills in children with dyslexia: A meta-analysis of the role of nonword repetition skills in dyslexia. *Scientific Studies of Reading*, 16, 1-34.

Tessa

- Age: 7 years, 7 months
- Grade: 2
- Reason for referral: Parent and teacher concerns about reading and spelling development



Vocabulary

CLUSTER/Test Name	Development		Proficiency		Relative Standing	
	W Score (95% Confidence Band)	Age Equivalent	W Difference Score	Relative Proficiency Index	Standard Score (95% Confidence Band)	Percentile Rank (95% Confidence Band)
VOCABULARY (Gc)	489 (482-497)	8y1m	5	94/90	107 (95-119)	68 (40-90)
	-	-	Average	Average	Average	Average
Picture Vocabulary	498 (488-508)	9y3m	10	97/90	113 (101-126)	81 (51-96)
	-	-	Average to Advanced	Average to Advanced	High Average	High Average
Academic Vocabulary	481 (469-493)	7y4m	-1	89/90	99 (86-112)	47 (17-84)
	-	-	Average	Average	Average	Average

Basic Reading Skills and Reading Fluency

BASIC READING SKILLS (Grw)	436 (429-443)	6y4m	-25	38/90	86 (82-90)	18 (12-26)
	-	-	Limited	Limited	Low Average	Low Average
Letter-Word Identification	423 (415-431)	6y7m	-24	39/90	90 (86-93)	25 (18-32)
	-	-	Limited	Limited	Average	Average
Word Attack	448 (437-460)	5y10m	-25	36/90	82 (73-90)	11 (4-26)
	-	-	Limited	Limited	Low Average	Low Average
READING FLUENCY (Grw)	452 (445-458)	5y7m	-23	42/90	81 (76-87)	11 (6-19)
	-	-	Limited	Limited	Low Average	Low Average
Sentence Reading Fluency	445 (435-455)	5y1m	-30	26/90	82 (77-88)	12 (6-22)
	-	-	Limited	Limited	Low Average	Low Average
Word Reading Fluency	458 (450-467)	6y1m	-17	59/90	89 (84-95)	24 (14-37)
	-	-	Limited	Limited	Low Average	Low Average

Spelling Skills and Phoneme-Grapheme Knowledge

SPELLING SKILLS (Grw; Ga)	451 (443-459)	6y4m	-17	58/90	87 (82-93)	20 (11-32)
	-	-	Limited	Limited	Low Average	Low Average
Spelling	424 (412-435)	6y2m	-28	30/90	86 (80-92)	17 (9-29)
	-	-	Limited	Limited	Low Average	Low Average
Spelling of Sounds	479 (468-489)	6y8m	-7	81/90	92 (81-104)	31 (10-63)
	-	-	Limited to Average	Limited to Average	Average	Average
PHONEME-GRAPHEME KNOWLEDGE (Grw; Ga)	463 (456-471)	6y2m	-16	61/90	85 (77-92)	16 (7-30)
	-	-	Limited	Limited	Low Average	Low Average
Word Attack	448 (437-460)	5y10m	-25	36/90	82 (73-90)	11 (4-26)
	-	-	Limited	Limited	Low Average	Low Average
Spelling of Sounds	479 (468-489)	6y8m	-7	81/90	92 (81-104)	31 (10-63)
	-	-	Limited to Average	Limited to Average	Average	Average

Instructional Implications from Word Attack and Spelling of Sounds

- Knew consonant sounds for *s*, *t*, *n*, and *p*
- Confused sounds of *b* and *d*
- Knew short vowel sounds for *a* and *o*
- Did not recognize consonant blends or digraphs
- Could not read CVC nonsense words



Phonological Awareness and Phonological Manipulation

CLUSTER/Test Name	Development		Proficiency		Relative Standing	
	W Score (95% Confidence Band)	Age Equivalent	W Difference Score	Relative Proficiency Index	Standard Score (95% Confidence Band)	Percentile Rank (95% Confidence Band)
PHONOLOGICAL AWARENESS (Ga)	482 (473-491)	7y7m	2	92/90	102 (93-110)	54 (35-74)
	-	-	Average	Average	Average	Average
Sound Blending	466 (453-479)	5y3m	-19	53/90	83 (71-95)	13 (3-37)
	-	-	Limited	Limited	Low Average	Low Average
Segmentation	498 (485-512)	9y10m	23	99/90	113 (105-121)	81 (64-92)
	-	-	Advanced	Advanced	High Average	High Average
PHONOLOGICAL MANIPULATION (Ga)	466 (457-474)	5y6m	-18	57/90	80 (70-90)	9 (2-24)
	-	-	Limited	Limited	Low Average	Low Average
Sound Deletion	458 (448-469)	4y11m	-26	35/90	73 (62-84)	4 (1-14)
	-	-	Limited	Limited	Low	Low
Sound Substitution	473 (459-486)	6y4m	-10	76/90	90 (77-104)	26 (6-60)
	-	-	Limited to Average	Limited to Average	Average	Average

Auditory Memory Span

AUDITORY MEMORY SPAN (Gwm)	450 (441-459)	<4y0m	-36	14/90	67 (58-75)	1 (<1-5)
	-	-	Very Limited	Very Limited	Very Low	Very Low
Memory for Words	440 (426-454)	<4y0m	-46	5/90	63 (51-74)	1 (<1-4)
	-	-	Very Limited	Very Limited	Very Low	Very Low
Sentence Repetition	461 (450-472)	4y6m	-26	33/90	77 (67-86)	6 (1-18)
	-	-	Limited	Limited	Low	Low

Rapid Automatized Naming

RAN-READING (Gs; Gr)	486 (481-490)	4y9m	-9	76/90	80 (71-90)	9 (3-24)
	-	-	Limited to Average	Limited to Average	Low Average	Low Average
Rapid Picture Naming	488 (480-496)	4y6m	-8	79/90	86 (72-100)	17 (3-50)
	-	-	Limited to Average	Limited to Average	Low Average	Low Average
Rapid Letter Naming	480 (471-489)	5y2m	-12	71/90	80 (66-95)	10 (1-37)
	-	-	Limited to Average	Limited to Average	Low Average	Low Average
Rapid Phoneme Naming	489 (483-495)	4y0m	-8	78/90	88 (80-97)	22 (9-41)
	-	-	Limited to Average	Limited to Average	Low Average	Low Average

Single Tests

Nonsense Word Repetition	474 (464-483)	4y4m	-18	54/90	76 (64-88)	6 (1-22)
	-	-	Limited	Limited	Low	Low
Oral Reading	452 (444-461)	6y5m	-17	59/90	89 (83-95)	23 (13-36)
	-	-	Limited	Limited	Low Average	Low Average

Sight Word Learning and Phonics Instruction

- Teach Tessa phoneme-grapheme relationships guided by a scope and sequence chart. Can use picture mnemonics (letter s as a snake).
- Teach her how to segment spoken words into phonemes.
- Once she has learned a small set of these relationships (e.g., a, m, s, p, f, o, t), she can begin to read words and write spellings (e.g., mat, mop, pot).
- Teach her how to sound out graphemes and then blend the sounds together. Begin with vowel-consonant (VC- am, at) and then CVC words.

Adapted from: Ehri, L. (2022). Sight word learning supported by systematic phonics instruction. *Nomanis, 14*, 27-28.

WISC-V, Grade 3

Composite Score Summary

Composite		Sum of Scaled Scores	Composite Score	Percentile Rank	95 % Confidence Interval	Qualitative Description	SEM
Verbal Comprehension	VCI	22	106	66	98-113	Average	3.97
Visual Spatial	VSI	33	138	99	127-143	Extremely High	4.50
Fluid Reasoning	FRI	30	128	97	119-133	Very High	3.97
Working Memory	WMI	25	115	84	106-121	High Average	4.24
Processing Speed	PSI	20	100	50	91-109	Average	5.41
Full Scale IQ	FSIQ	86	117	87	111-122	High Average	3.00

WIAT III, Grade 3

Subtest Score Summary

Subtest	Raw Score	Standard Score	95 % Confidence Interval	Percentile Rank	Normal Curve Equiv.	Stanine	Grade Equiv.	Age Equiv.	Growth Score
Early Reading Skills	31	83	74-92	13	26	3	1.4	6:8	470
Reading Comprehension	15 ^{1,2}	77	64-90	6	18	2	1.5	6:8	450
Math Problem Solving	44	103	92-114	58	54	5	4.2	9:4	522
Alphabet Writing Fluency	9	85	69-101	16	29	3	1.4	6:8	482
Sentence Composition	-	79	69-89	8	21	2	1.9	7:0	479
Word Reading	13	71	67-75	3	9	1	1.4	6:8	367
Essay Composition	-	79	69-89	8	21	2	<3.0	<8:0	473
Pseudoword Decoding	20	93	89-97	32	40	4	2.5	7:8	482
Numerical Operations	25	100	91-109	50	50	5	4.0	9:0	527
Oral Expression	-	105	94-116	63	57	6	5.7	11:6	503
Oral Reading Fluency	43 ^{1,2}	61	53-69	0.5	<1	1	1.0	6:0	440
Spelling	14	82	75-89	12	25	3	1.9	7:4	420
Math Fluency-Addition	17	84	71-97	14	28	3	2.1	7:4	435
Math Fluency-Subtraction	14	88	78-98	21	33	3	2.6	8:0	465
Math Fluency-Multiplication	7	86	77-95	18	30	3	3.3	8:4	471

Composite Score Summary

Composite	Sum of Subtest Standard Scores	Standard Score	95% Confidence Interval	Percentile Rank	Normal Curve Equiv.	Stanine	Qualitative Description
Total Reading	302	73	68-78	4	12	2	Below Average
Basic Reading	164	82	79-85	12	25	3	Below Average
Reading Comprehension and Fluency	138	66	57-75	1	2	1	Low
Written Expression	240	76	69-83	5	16	2	Below Average
Mathematics	203	102	94-110	55	53	5	Average
Math Fluency	258	84	76-92	14	28	3	Below Average

He qualified for SLD. Report concluded: “Alex may benefit from programs such as Corrective Reading, Lindamood Seeing Stars, Read Naturally, Read 180, and the Wilson Reading System. Refer Alex to the gifted program.”

Alex Grade 6

Comment on the Purpose for Testing

- Me: “The purpose of this evaluation is to find out the best way to help you with your reading and spelling.”
- Alex: “So, after the testing is done, is someone going to teach me how to read and spell?”
- Me: “That is the plan.”
- Alex: “Yeah, right.”

Grade 6

Woodcock-Johnson Tests of Achievement – Fourth Edition (WJ-IV)			
<u>CLUSTER/Test</u>	<u>Standard Score</u>	<u>Percentile</u>	<u>RPI</u>
Letter-Word Identification	41	<0.1	0/90
Applied Problems	120	91	99/90
Spelling	59	0.3	2/90
Passage Comprehension	<40	<0.1	1/90
Calculation	112	79	98/90
Writing Samples	48	<0.1	1/90
Word Attack	86	17	63/90
Oral Reading	53	<0.1	3/90
Sentence Reading Fluency	51	<0.1	0/90
Math Facts Fluency	79	8	19/90
Sentence Writing Fluency	56	0.2	16/90
Reading Recall	71	3	51/90
Word Reading Fluency	54	0.1	0/90
Spelling of Sounds	71	2	36/90
Broad Reading	<40	<0.1	0/90
Basic Reading Skills	58	0.3	4/90
Reading Comprehension	46	<0.1	10/90
Reading Fluency	46	<0.1	0/90
Reading Rate	51	<0.1	0/90
Broad Mathematics	101	52	91/90
Math Calculation Skills	93	32	75/90
Broad Written Language	47	<0.1	4/90
Written Expression	46	<0.1	5/90
Phoneme Grapheme Knowledge	76	6	50/90

Age: 13 years, 10 months
Examiner: Nancy Mather
Grade: 8.0
Date(s) of Testing: 09/12/2025
 (Norms based on Grade 8.0)

Dyslexia Test Set Results

Purpose of Report

This report organizes and presents Alex's assessment results and other relevant information in a manner that may be useful for determining whether additional evaluation is recommended. Summary statements are only generated for tests included in the Dyslexia Test Set. If tests outside of the Dyslexia Test Set are added, no summary statements will be generated for the additional tests.

Interpreting this Report

Standard scores designated with green (≥ 90) are in the Average, High Average, Superior or Very Superior range.

Standard scores designated with yellow (80-89) are in the Low Average range and considered at-risk.

Standard scores designated with red (≤ 79) are in the Low or Very Low range and considered at high risk.

Basic Reading Skills and Reading Fluency

Area Tested	Cluster	Test Name	RPI	Proficiency	SS	PR	SS Performance Indicator
BASIC READING SKILLS AND READING FLUENCY	BASIC READING SKILLS (G _{ROW})	Letter-Word Identification	11/90	Very Limited	73	3	LOW
		*Word Attack	54/90	Limited	81	10	LOW AVERAGE
	READING FLUENCY (G _{ROW})	Sentence Reading Fluency	2/90	Extremely Limited	72	3	LOW
		Word Reading Fluency	6/90	Very Limited	75	5	LOW

*Word Attack contributes to two clusters.

Letter-Word Identification: Alex's performance reading real words in isolation is in the low range. This suggests that Alex experiences significant challenges recognizing and decoding (sounding out) unfamiliar words.

Word Attack: Alex's performance reading made-up words in isolation is in the low average range. This suggests some challenges with decoding skills (sounding out), which may impact their reading ability.

Sentence Reading Fluency: Alex's sentence reading fluency performance is in the low range. This suggests significant challenges with reading speed and automaticity (recognizing words easily).

Word Reading Fluency: Alex's word reading fluency performance is in the low range. This suggests significant challenges with reading speed and automaticity (recognizing words easily).

Phonics Knowledge and Spelling

Area Tested	Cluster	Test Name	RPI	Proficiency	SS	PR	SS Performance Indicator
PHONICS KNOWLEDGE AND SPELLING	PHONEME-GRAPHEME KNOWLEDGE (G _{ROW} ; Ga)	*Word Attack	54/90	Limited	81	10	LOW AVERAGE
		*Spelling of Sounds	47/90	Limited	75	5	LOW
	SPELLING SKILLS (G _{ROW} ; Ga)	Spelling	10/90	Very Limited	73	3	LOW
		*Spelling of Sounds	47/90	Limited	75	5	LOW

*Word Attack and Spelling of Sounds each contribute to two clusters.

Word Attack: Alex's performance reading made-up words in isolation is in the low average range. This suggests some challenges with decoding skills (sounding out), which may impact their reading ability.

Spelling of Sounds: Alex's performance recognizing letter-sound relationships is in the low range. Letter-sound knowledge is critical for both reading and spelling.

Spelling: Alex's performance spelling words is in the low range. This suggests that Alex experiences significant challenges spelling familiar words.

Linguistic Risk Factors

Area Tested	Cluster	Test Name	RPI	Proficiency	SS	PR	SS Performance Indicator
LINGUISTIC RISK FACTORS	PHONOLOGICAL AWARENESS (Ga)	Sound Blending	99/90	Advanced	120	91	HIGH AVERAGE
		Segmentation	99/90	Advanced	113	80	HIGH AVERAGE
	PHONOLOGICAL MANIPULATION (Ga)	**Sound Deletion	93/90	Average	105	62	AVERAGE
		**Sound Substitution	81/90	Limited to Average	92	30	AVERAGE
	RAN-READING (Gs; Gr)	Rapid Picture Naming	64/90	Limited	77	6	LOW
		Rapid Letter Naming	49/90	Limited	77	7	LOW
		Rapid Phoneme Naming	81/90	Limited to Average	91	28	AVERAGE
	AUDITORY MEMORY SPAN (Gwm)	Memory for Words	84/90	Average	96	39	AVERAGE
		Sentence Repetition	90/90	Average	100	50	AVERAGE

**Sound Deletion is recommended for examinees age 5 to 11, and Sound Substitution is recommended for examinees age 6 to 12. The platform will, however, allow the user to administer these two tests to examinees outside the recommended age ranges.

Sound Blending: Alex's performance blending sounds into words is in the high average range.

Segmentation: Alex's performance segmenting words into phonemes is in the high average range.

Sound Deletion: Alex's performance deleting sounds from words is in the average range.

Sound Substitution: Alex's performance substituting sounds in words is in the average range.

Rapid Picture Naming: Alex's performance on rapid picture naming is in the low range, suggesting significant difficulty with retrieving words when shown an image of that word.

Rapid Letter Naming: Alex's performance on rapid letter naming is in the low range, suggesting significant difficulty with retrieving letter names when shown the letter.

Rapid Phoneme Naming: Alex's performance with rapid phoneme naming is in the average range.

Memory for Words: Alex's performance on the Memory for Words test is in the average range.

Sentence Repetition: Alex's performance on the Sentence Repetition test is in the average range.

Vocabulary

Area Tested	Cluster	Test Name	RPI	Proficiency	SS	PR	SS Performance Indicator
VOCABULARY	VOCABULARY (Gc)	Picture Vocabulary	99/90	Advanced	125	95	SUPERIOR
		Academic Vocabulary	93/90	Average	104	62	AVERAGE

Picture Vocabulary: Alex's performance on the Picture Vocabulary test is in the superior range.

Academic Vocabulary: Alex's performance on the Academic Vocabulary test is in the average range.

Alex's vocabulary is in the average range, but they have difficulty in one or more reading skills. This could suggest that reading difficulties are not due to a general language delay but rather specific difficulties with decoding or fluency.

Non-Contributing Tests

Area Tested	Cluster	Test Name	RPI	Proficiency	SS	PR	SS Performance Indicator
	NON-CONTRIBUTING TESTS	Oral Reading	23/90	Very Limited	70	2	VERY LOW
		Nonsense Word Repetition	98/90	Advanced	123	93	SUPERIOR

Oral Reading: Alex's performance on oral reading is in the very low range, suggesting significant difficulty with accurate reading, as indicated by frequent omissions, substitutions, or misread words.

Nonsense Word Repetition: Alex's performance on the Nonsense Word Repetition test is in the superior range.

Woodcock-Johnson V Tests of Achievement

CLUSTER/Test Name	Development		Proficiency		Relative Standing	
	W Score (95% Confidence Band)	Age Equivalent	W Difference Score	Relative Proficiency Index	Standard Score (95% Confidence Band)	Percentile Rank (95% Confidence Band)
VOCABULARY (Gc)	532 (525-539)	>29y	18	99/90	124 (114-134)	95 (83-99)
	-	-	Advanced	Advanced	Superior	Superior
Picture Vocabulary	542 (530-553)	>29y	28	99/90	135 (121-149)	99 (92->99)
	-	-	Advanced	Advanced	Very Superior	Very Superior
Academic Vocabulary	522 (513-531)	23y	8	96/90	112 (99-125)	79 (48-95)
	-	-	Average to Advanced	Average to Advanced	High Average	High Average
BASIC READING SKILLS (Grw)	531 (523-538)	>29y	12	97/90	111 (105-118)	78 (62-89)
	-	-	Average to Advanced	Average to Advanced	High Average	High Average
Letter-Word Identification	542 (531-553)	>29y	17	98/90	113 (105-121)	80 (62-92)
	-	-	Advanced	Advanced	High Average	High Average
Word Attack	519 (510-528)	21y	7	95/90	107 (98-116)	68 (43-86)
	-	-	Average to Advanced	Average to Advanced	Average	Average
READING FLUENCY (Grw)	581 (574-589)	>27y	41	100/90	119 (116-123)	90 (85-94)
	-	-	Very Advanced	Very Advanced	High Average	High Average
Sentence Reading Fluency	560 (551-568)	19y8m	17	98/90	108 (104-111)	69 (60-78)
	-	-	Advanced	Advanced	Average	Average
Word Reading Fluency	603 (591-615)	>28y	64	100/90	127 (122-132)	96 (93-98)
	-	-	Very Advanced	Very Advanced	Superior	Superior

SPELLING SKILLS (Grw; Ga)	539 (529-548)	>28y	19	99/90	118 (109-127)	88 (72-96)
	-	-	Advanced	Advanced	High Average	High Average
Spelling	546 (533-558)	>29y	19	99/90	113 (104-122)	81 (62-93)
	-	-	Advanced	Advanced	High Average	High Average
Spelling of Sounds	531 (517-546)	>23y	19	99/90	124 (106-142)	94 (66->99)
	-	-	Advanced	Advanced	Superior	Superior
PHONEME-GRAPHEME KNOWLEDGE (Grw; Ga)	525 (517-534)	>26y	13	97/90	116 (105-126)	86 (64-96)
	-	-	Average to Advanced	Average to Advanced	High Average	High Average
Word Attack	519 (510-528)	21y	7	95/90	107 (98-116)	68 (43-86)
	-	-	Average to Advanced	Average to Advanced	Average	Average
Spelling of Sounds	531 (517-546)	>23y	19	99/90	124 (106-142)	94 (66->99)
	-	-	Advanced	Advanced	Superior	Superior
Non-Contributing						
Oral Reading	534 (520-548)	>29y	16	98/90	114 (102-126)	83 (54-96)
	-	-	Advanced	Advanced	High Average	High Average

Woodcock-Johnson V Virtual Test Library

CLUSTER/Test Name	Development		Proficiency		Relative Standing	
	W Score (95% Confidence Band)	Age Equivalent	W Difference Score	Relative Proficiency Index	Standard Score (95% Confidence Band)	Percentile Rank (95% Confidence Band)
PHONOLOGICAL AWARENESS (Ga)	513 (504-522)	17y2m	2	92/90	102 (93-110)	55 (31-75)
	-	-	Average	Average	Average	Average
Sound Blending	506 (496-516)	11y7m	-6	82/90	94 (84-104)	35 (14-60)
	-	-	Average	Average	Average	Average
Segmentation	520 (505-535)	>27y	10	96/90	107 (96-118)	68 (38-89)
	-	-	Average to Advanced	Average to Advanced	Average	Average
PHONOLOGICAL MANIPULATION (Ga)	521 (503-538)	>23y	8	96/90	112 (86-138)	79 (25->99)
	-	-	Average to Advanced	Average to Advanced	High Average	High Average
Sound Deletion	523 (494-552)	>22y	10	97/90	115 (73-157)	84 (10->99)
	-	-	Average to Advanced	Average to Advanced	High Average	High Average

Sound Substitution	518 (499-537)	>23y	6	94/90	107 (84-130)	69 (17-98)
	-	-	Average	Average	Average	Average
AUDITORY MEMORY SPAN (Gwm)	512 (501-523)	14y0m	-2	88/90	98 (87-109)	45 (20-71)
	-	-	Average	Average	Average	Average
Memory for Words	506 (491-520)	11y8m	-9	78/90	92 (80-105)	31 (9-62)
	-	-	Limited to Average	Limited to Average	Average	Average
Sentence Repetition	519 (502-536)	18y3m	4	94/90	104 (90-118)	60 (22-88)
	-	-	Average	Average	Average	Average
RAN-READING (Gs; Gr)	515 (511-520)	16y6m	2	92/90	103 (97-108)	57 (41-71)
	-	-	Average	Average	Average	Average
Rapid Picture Naming	515 (507-524)	17y8m	4	93/90	104 (95-113)	61 (34-81)
	-	-	Average	Average	Average	Average
Rapid Letter Naming	528 (519-536)	20y	9	96/90	108 (100-116)	70 (51-86)
	-	-	Average to Advanced	Average to Advanced	Average	Average
Rapid Phoneme Naming	503 (497-508)	10y4m	-6	83/90	93 (87-100)	33 (20-49)
	-	-	Average	Average	Average	Average
Non-Contributing						
Nonsense Word Repetition	516 (505-526)	>21y	8	96/90	111 (97-126)	77 (41-96)
	-	-	Average to Advanced	Average to Advanced	High Average	High Average

Is having trouble keeping up with the required reading in classes.

Is having trouble finishing exams.

Never was formally diagnosed with dyslexia.

Remembers having a lot of tutoring and help with reading and spelling in elementary school.

Is worried that college will be too difficult.

Vocabulary (Gc)

	Development		Proficiency		Relative Standing	
	W Score (95% Confidence Band)	Age Equivalent	W Difference Score	Relative Proficiency Index	Standard Score (95% Confidence Band)	Percentile Rank (95% Confidence Band)
Vocabulary (Gc)	534 (526-541)	>29y	13	98/90	117 (107-127)	87 (69-96)
Test Name	W Score (95% Confidence Band)	Age Equivalent	W Difference Score	Relative Proficiency Index	Standard Score (95% Confidence Band)	Percentile Rank (95% Confidence Band)
Picture Vocabulary	534 (523-546)	>29y	14	98/90	117 (104-130)	87 (60-98)
Academic Vocabulary	533 (522-543)	>29y	12	97/90	117 (103-131)	87 (57-98)

Basic Reading Skills (Grw)

	Development		Proficiency		Relative Standing	
	W Score (95% Confidence Band)	Age Equivalent	W Difference Score	Relative Proficiency Index	Standard Score (95% Confidence Band)	Percentile Rank (95% Confidence Band)
Basic Reading Skills (Grw)	536 (528-544)	>29y	11	97/90	110 (103-118)	76 (57-89)
Test Name	W Score (95% Confidence Band)	Age Equivalent	W Difference Score	Relative Proficiency Index	Standard Score (95% Confidence Band)	Percentile Rank (95% Confidence Band)
Letter-Word Identification	553 (541-566)	>29y	20	99/90	115 (106-124)	84 (65-95)
Word Attack	519 (510-528)	21y	1	91/90	101 (91-111)	53 (28-77)

Spelling Skills (Grw; Ga)

	Development		Proficiency		Relative Standing	
	W Score (95% Confidence Band)	Age Equivalent	W Difference Score	Relative Proficiency Index	Standard Score (95% Confidence Band)	Percentile Rank (95% Confidence Band)
Spelling Skills (Grw; Ga)	536 (527-545)	>28y	9	96/90	109 (100-117)	72 (51-87)
Test Name	W Score (95% Confidence Band)	Age Equivalent	W Difference Score	Relative Proficiency Index	Standard Score (95% Confidence Band)	Percentile Rank (95% Confidence Band)
Spelling	546 (533-558)	>29y	8	95/90	106 (97-115)	65 (41-84)
Spelling of Sounds	526 (514-539)	>23y	10	97/90	113 (97-128)	80 (44-97)

Phoneme-Grapheme Knowledge (Grw; Ga)

	Development		Proficiency		Relative Standing	
	W Score (95% Confidence Band)	Age Equivalent	W Difference Score	Relative Proficiency Index	Standard Score (95% Confidence Band)	Percentile Rank (95% Confidence Band)
Phoneme-Grapheme Knowledge (Grw; Ga)	523 (515-530)	>26y	6	94/90	107 (98-117)	69 (44-87)
Test Name	W Score (95% Confidence Band)	Age Equivalent	W Difference Score	Relative Proficiency Index	Standard Score (95% Confidence Band)	Percentile Rank (95% Confidence Band)
Word Attack	519 (510-528)	21y	1	91/90	101 (91-111)	53 (28-77)
Spelling of Sounds	526 (514-539)	>23y	10	97/90	113 (97-128)	80 (44-97)

Reading Fluency (Grw)

	Development		Proficiency		Relative Standing	
	W Score (95% Confidence Band)	Age Equivalent	W Difference Score	Relative Proficiency Index	Standard Score (95% Confidence Band)	Percentile Rank (95% Confidence Band)
Reading Fluency (Grw)	515 (509-520)	11y3m	-42	8/90	80 (77-83)	9 (6-12)
Test Name	W Score (95% Confidence Band)	Age Equivalent	W Difference Score	Relative Proficiency Index	Standard Score (95% Confidence Band)	Percentile Rank (95% Confidence Band)
Sentence Reading Fluency	511 (504-518)	10y10m	-49	4/90	79 (76-82)	8 (6-12)
Word Reading Fluency	518 (509-527)	11y9m	-35	16/90	82 (78-87)	12 (7-19)

Phonological Awareness (Ga)

	Development		Proficiency		Relative Standing	
	W Score (95% Confidence Band)	Age Equivalent	W Difference Score	Relative Proficiency Index	Standard Score (95% Confidence Band)	Percentile Rank (95% Confidence Band)
Phonological Awareness (Ga)	518 (509-528)	>26y	4	93/90	103 (94-112)	59 (34-80)
Test Name	W Score (95% Confidence Band)	Age Equivalent	W Difference Score	Relative Proficiency Index	Standard Score (95% Confidence Band)	Percentile Rank (95% Confidence Band)
Sound Blending	509 (499-519)	12y10m	-7	81/90	94 (84-103)	34 (14-58)
Segmentation	527 (511-543)	>27y	14	98/90	111 (98-123)	76 (45-94)

Phonological Manipulation (Ga)

	Development		Proficiency		Relative Standing	
	W Score (95% Confidence Band)	Age Equivalent	W Difference Score	Relative Proficiency Index	Standard Score (95% Confidence Band)	Percentile Rank (95% Confidence Band)
Phonological Manipulation (Ga)	502 (494-510)	10y7m	-14	65/90	85 (76-93)	15 (5-33)
Test Name	W Score (95% Confidence Band)	Age Equivalent	W Difference Score	Relative Proficiency Index	Standard Score (95% Confidence Band)	Percentile Rank (95% Confidence Band)
Sound Deletion	502 (489-514)	10y3m	-15	64/90	84 (71-97)	15 (3-43)
Sound Substitution	503 (492-513)	10y11m	-14	66/90	85 (73-96)	15 (3-41)

RAN-Reading (Gs; Gr)

	Development		Proficiency		Relative Standing	
	W Score (95% Confidence Band)	Age Equivalent	W Difference Score	Relative Proficiency Index	Standard Score (95% Confidence Band)	Percentile Rank (95% Confidence Band)
RAN- Reading (Gs; Gr)	508 (504-512)	12y5m	-11	74/90	85 (80-90)	16 (10-26)
Test Name	W Score (95% Confidence Band)	Age Equivalent	W Difference Score	Relative Proficiency Index	Standard Score (95% Confidence Band)	Percentile Rank (95% Confidence Band)
Rapid Picture Naming	505 (498-512)	11y8m	-13	69/90	85 (77-93)	16 (6-32)
Rapid Letter Naming	502 (496-507)	9y6m	-25	36/90	74 (69-80)	4 (2-9)
Rapid Phoneme Naming	518 (511-524)	>29y	6	94/90	105 (99-112)	64 (47-78)

Considerations

- Has a family history of dyslexia (father, uncle, and older brother).
- Began reading tutoring in first grade. Continued until grade 7.
- Used Mindplay online reading program at home 5 days a week for the first two years in high school.
<https://parents.mindplay.com/account/plans>
- Has mastered phonics but still reads slowly.
- Has weaknesses in both memory and RAN.
- Additional testing: working memory

	Cluster	Test Name	SS	PR	RPI
Additional Linguistic Risk Factors	Auditory Working Memory Capacity	Verbal Attention (<u>Gwm</u>)			<u>90</u>
		Numbers Reversed (<u>Gwm</u>)			<u>90</u>
	Cognitive Processing Speed	Number-Pattern Matching (<u>Gs</u>)			<u>90</u>
		Letter-Pattern Matching (<u>Gs</u>)			<u>90</u>
	Phonemic Retrieval Fluency	Phonemic Word Retrieval (Gr)			<u>90</u>
		*Rapid Phoneme Naming (Gr, Ga)			<u>90</u>
	Cognitive Efficiency	Verbal Attention (<u>Gwm</u>)			<u>90</u>
		Number-Pattern Matching) (<u>Gs</u>)			<u>90</u>
Vocabulary	Comprehension-Knowledge	Oral Vocabulary (Gc)			<u>90</u>
		Verbal Analogies (Gc, Gf)			<u>90</u>
	Single Test	Visual-Auditory Learning (<u>Gv</u> , Gf)			<u>90</u>

NAME _____ School _____ DYSLEXIA PROFILE FOR THE WJ V _____ Grade _____ ID _____ Date _____			
The (name of state) Education Code [§ state number] [or country] defines dyslexia in the following way:			
International Dyslexia Association Definition (2025) Dyslexia is a specific learning disability characterized by difficulties in word reading and/or (spelling that involve accuracy, speed, or both and vary depending on the orthography. These difficulties occur along a continuum of severity and persist even with instruction that is effective for the individual's peers. The causes of dyslexia are complex and involve combinations of genetic, neurological, and environmental influences that interact throughout development. Underlying dyslexia with phonological and morphological processing are core deficits in phonological awareness, rapid automatized naming, and processing speed. Other abilities, such as general intelligence, reasoning, and language, mathematics, and knowledge, that do not require reading, comprehension and reduced reading and writing experience that can impede growth in language, knowledge, written expression, and academic achievement. Psychological well-being and employment opportunities may also be affected. Although identification and targeted instruction are important at any age, language and literacy support before and during the early years of education is particularly effective. <i>Authors' note: Dyslexia affects reading at the single word level, fluency and rate, and spelling. In turn, these weaknesses cause difficulties with comprehension and written expression. According to research, the major linguistic risk factors of dyslexia include weakness in one or more of the following abilities: phonological awareness, morphological awareness, memory, rapid automatized naming, and processing speed. Other abilities, such as general intelligence, reasoning, and language, mathematics, and knowledge, that do not require reading, are often intact, but reading and writing difficulties are often unexpected in relation to the student's other abilities.</i>			
Section 1 Summary (For use with the WJ V)			
A. Primary and Secondary Reading, Spelling, and Writing Difficulties			
Primary Reading and Spelling Difficulties		Secondary Reading and Writing Difficulties	
☐ Letter-Sound Knowledge^a ☐ Letter names ^a ☐ Basic Reading Skills^a ☐ Word Attack Identification ☐ Word Attack ☐ Phoneme-Grapheme Knowledge ☐ Word Attack ☐ Spelling of Sounds ☐ Reading Ability ☐ Word Reading Fluency ☐ Oral Reading	☐ Spelling^a ☐ Spelling Skills ☐ Spelling of Sounds ☐ Phoneme-Grapheme Knowledge ☐ Word Attack ☐ Spelling of Sounds ☐ Spelling in context ☐ Class Work Samples ^a ☐ Written Language Sample ^a ☐ Sentence Writing Accuracy ^a	☐ Reading Comprehension ☐ Reading Comprehension ☐ Spelling ☐ Paragraph Reading Knowledge ☐ Written Expression ☐ Sentence Writing Fluency ☐ Letter-Pattern Samples	
B. Cognitive and Linguistic Abilities: Possible Contributing Factors			
the areas that are possible contributing factors.			
☐ Phonological Processes^a ☐ Sound Deletion ☐ Segmentation ☐ Phonological Manipulation ☐ Sound Deletion ☐ Sound Addition ☐ Phonemic Retrieval Fluency ☐ Phonemic Word Retrieval ☐ Rapid Phoneme Naming ☐ Sound Reversal ☐ Nonsense Word Repetition	☐ Orthographic Awareness^{a,b} ☐ Number-Pattern Matching ☐ Letter-Pattern Matching ☐ Letter-Word Identification ☐ Word Attack ☐ Spelling ☐ Spelling of Sounds	☐ Memory ☐ Auditory Working Memory ☐ Verbal Attention ☐ Numbers Reversed ☐ Visual Working Memory ☐ Auditory Memory Span ☐ Memory for Words ☐ Spatial Reasoning ☐ Long-Term Storage ☐ Story Recall ☐ Story Comprehension ☐ Animal-Number Sequencing ☐ Understanding Directions	☐ Rapid Automatized Naming (RAN) ☐ Block Reading ☐ Rapid Picture Naming ☐ Rapid Letter Naming ☐ Phoneme Naming ☐ Matching
C. Ability to Learn When Reading is Not Required			
the areas that are significantly higher than the individual's basic reading and spelling skills.			
☐ Cognitive Abilities ☐ General Intellectual Ability ☐ Gifted Composite ☐ Rapid Reasoning	☐ Oral Language ☐ Oral Expression ☐ Listening Comprehension ☐ Oral Fluency ^a	☐ Math Calculation Skills ☐ Number Concepts ☐ Math Problem Solving ☐ Academic Knowledge	☐ Comprehension Knowledge ☐ Academic Applications ☐ Academic Knowledge
Single Item			
At-Risk Indicator Check the areas below that are additional at-risk factors			
☐ Family history ☐ Early language issues ☐ Comorbidity ☐ Early language issues			
☐ does demonstrate characteristics of dyslexia. ☐ does not demonstrate characteristics of dyslexia. ☐ does demonstrate characteristics of dyslexia; however, these characteristics would not be consistent with [State guidelines] for the identification of dyslexia.			

Dyslexia Evaluation Checklist: Teacher Form

Student's Name (Last) _____ (First) _____ Date _____

Teacher's Name (Last) _____ (First) _____

Preferred Form of Address: ☐ Mr. ☐ Mrs. ☐ Ms. ☐ Miss

*Check only the items that apply to the student.
Provide examples where indicated.*

A. Oral Language Skills

- ☐ 1. Has difficulty rhyming words
- ☐ 2. Has difficulty isolating the first and/or last sound in one-syllable words
- ☐ 3. Has trouble pronouncing multisyllabic words
- ☐ 4. Has trouble retrieving words quickly
- ☐ 5. Often uses the wrong word when speaking or has difficulty recalling a word
- ☐ 6. Has difficulty following oral multistep directions

B. Nonreading Skills

- ☐ 1. Has age-appropriate oral language skills
- ☐ 2. Is creative (e.g., art, music, problem solving)
If checked, provide example(s): _____
- ☐ 3. Enjoys visual-spatial tasks (e.g., puzzles, blocks, visual designs)
If checked, provide example(s): _____
- ☐ 4. Enjoys activities that do not require reading
If checked, provide example(s): _____

C. Basic Reading Skills

- ☐ 1. Has difficulty learning letter names
- ☐ 2. Has difficulty learning letter sounds
- ☐ 3. Has difficulty retaining the connections between letters and sounds
- ☐ 4. Demonstrates difficulty learning phonics
- ☐ 5. Learns phonics generalizations but has difficulty applying them to new words
- ☐ 6. Is slow to develop a sight vocabulary
- ☐ 7. Has difficulty recognizing/reading irregular words
- ☐ 8. Reverses/inverts/transposes letters or words with similar visual appearance (e.g., *bat* *nli*; *was*/*saw*; *built*/*blind*)
If checked, provide example(s): _____
- ☐ 9. Substitutes articles and prepositions when reading (e.g., *a*the; *for*or)
If checked, how frequently does this occur?
☐ a. Sometimes ☐ b. Often ☐ c. Very often

C. Basic Reading Skills (continued)

- ☐ 10. Substitutes similar-looking words when reading (e.g., *house*/*horse*)
If checked, how frequently does this occur?
☐ a. Sometimes ☐ b. Often ☐ c. Very often
- ☐ 11. Has trouble reading words with two or more syllables

D. Attitude Toward Reading

- ☐ 1. Complaints about reading
- ☐ 2. Shows frustration or anxiety when reading
- ☐ 3. Resists reading aloud

E. Reading Proficiency and Comprehension

- ☐ 1. Takes a long time to complete assignments that require reading
- ☐ 2. Reads slowly
- ☐ 3. Lacks expression/prosody when reading
- ☐ 4. Ignores punctuation marks when reading
- ☐ 5. Frequently must reread to get the meaning of the text
- ☐ 6. Does not understand or remember what has been read
- ☐ 7. Reading level is below other classmates

F. Spelling and Writing Skills

- ☐ 1. Omits sounds when spelling words
- ☐ 2. Spells words the way they sound, not the way they look (e.g., *said* as *sed*)
- ☐ 3. Spells the same word in different ways on the same page
- ☐ 4. Expresses ideas orally but struggles to put them into writing

G. Additional concerns:

EXAMINER USE ONLY

Exclusionary Factors: Please check the following factors that might be contributing to the student's reading and spelling difficulties.

- ☐ 1. Vision impairment
- ☐ 2. Hearing impairment
- ☐ 3. Motor impairment
- ☐ 4. Emotional disturbance
- ☐ 5. Intellectual impairment
- ☐ 6. Limited English proficiency
- ☐ 7. Health-related concerns
- ☐ 8. Poor school attendance
- ☐ 9. Environmental or economic disadvantage

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Developed by N. Mather, R. J. Wooding, L. E. Jaffe, C. M. Proctor, M. T. L. Stephens-Pearce

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Dyslexia Evaluation Checklist: Parent Form

Student's Name (Last) _____ (First) _____ Date _____

Respondent's Name (Last) _____ (First) _____

Preferred Form of Address: ☐ Mr. ☐ Mrs. ☐ Ms. ☐ Miss

Relationship:

☐ 1. Mother	☐ 5. Steplfather	☐ 9. Brother
☐ 2. Father	☐ 6. Grandmother	☐ 10. Aunt
☐ 3. Guardian	☐ 7. Grandfather	☐ 11. Uncle
☐ 4. Stepmother	☐ 8. Sister	☐ 12. Other (specify) _____

*Check only the items that describe your child.
Provide examples where indicated.*

A. Development

- ☐ 1. Has a history of ear infections
- ☐ 2. Had ear tubes inserted
- ☐ 3. Had difficulty learning to talk
- ☐ 4. Had speech therapy
- ☐ 5. Currently has speech therapy
- ☐ 6. Had some difficulty pronouncing new words
- ☐ 7. Currently has some difficulty pronouncing new words
- ☐ 8. Mispronounces some words by putting the sounds in the wrong order (e.g., *animal* for *animal* or *puget* for *spagetti*) or leaving sounds out
If checked, provide example(s): _____
- ☐ 9. Has difficulty following directions
- ☐ 10. Has difficulty remembering the details of a story that has been read aloud
- ☐ 11. Has difficulty with word retrieval such as remembering the names of people and places
- ☐ 12. Often uses the wrong word when speaking or has difficulty recalling the word he/she wants to use

B. Family History

- ☐ 1. Has one or more family members who have/had difficulty learning to read and spell
Relationship(s): _____
- ☐ 2. Has one or more family members who have/had difficulty with attention
Relationship(s): _____

C. Nonreading Skills

- ☐ 1. Is creative (e.g., loves to draw, sing, act, invent)
If checked, provide example(s): _____
- ☐ 2. Is good at assembling puzzles
- ☐ 3. Enjoys many activities that do not require reading
If checked, provide example(s): _____

D. Prereading Skills

- ☐ 1. Likes to listen to books
- ☐ 2. Does not like to look at print when listening to books read by others
- ☐ 3. Had trouble learning how to rhyme words
- ☐ 4. Currently has trouble rhyming words
- ☐ 5. Had trouble learning the alphabet
- ☐ 6. Has trouble remembering letter sounds
- ☐ 7. Has trouble breaking apart the sounds in words and then blending them back together to pronounce the words
- ☐ 8. Currently has difficulty recognizing some letters
- ☐ 9. Complaints about having to read
- ☐ 10. Shows anxiety or frustration about having to read
- ☐ 11. Dislikes reading aloud

E. Reading Skills

- ☐ 1. Confuses little words that look alike (e.g., *who* and *how*, *was* and *saw*)
If checked, provide example(s): _____
- ☐ 2. Does not read as well as others the same age
- ☐ 3. Takes a long time to finish homework that requires reading
- ☐ 4. Reads slowly and often has to reread to understand what he/she is reading
- ☐ 5. Needs a parent to read the assigned text aloud prior to doing the assignment

F. Spelling and Writing Skills

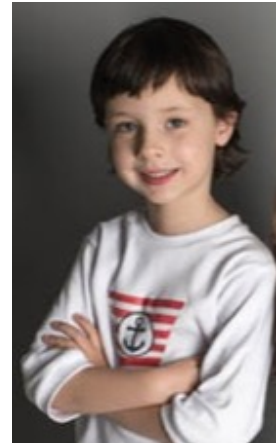
- ☐ 1. Spells words the way they sound rather than the way they look
- ☐ 2. Knows how to spell a word but then forgets it
- ☐ 3. May spell the same word in different ways on the same page
- ☐ 4. Had difficulty with handwriting
- ☐ 5. Currently has difficulty with handwriting
- ☐ 6. Has difficulty with written assignments

G. Additional concerns:

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Developed by N. Mather, R. J. Wooding, L. E. Jaffe, C. M. Proctor, M. T. L. Stephens-Pearce

The third question: What are the individual's strengths?

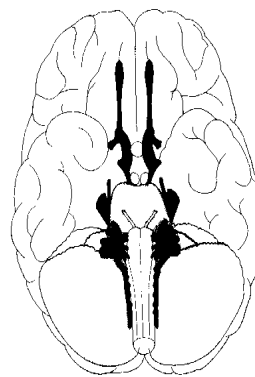


Need to identify the factors
that will facilitate
performance...

We shouldn't ask:
How smart you are...

but instead:
How are you smart?

—H. Gardner



Comparison Base Rate Procedures



Intra-Ability Base Rate Procedures

- Intra-Cognitive
- Intra-Achievement
- Academic Skills-Fluency-Applications

Ability-Achievement Base Rate Procedures

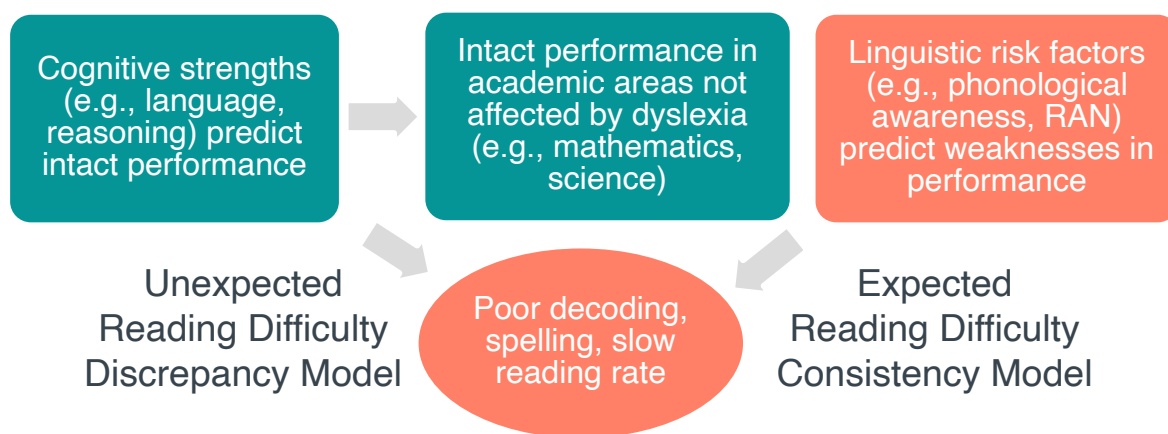
- General Intellectual Ability (GIA)- Achievement
- Gf-Gc Composite-Other Abilities
- Oral Language- Achievement
- Academic Knowledge/Achievement

Base Rate



Base rate refers to the prevalence of a certain ability within a population. In assessments, a “low base rate” indicates that the ability being tested is rare in the general population. For example, if a certain score occurs in only 2 out of every 100 people, the base rate would be 2%.

Unexpected and Expected Reading Difficulty



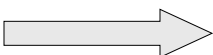
Three Procedures that can Contribute Information for SLD Identification in the US (IDEA, 2004)

- Ability-achievement discrepancy
- Response to intervention (RTI)
- Alternative research-based methods (e.g., a pattern of strengths and weaknesses- PSW approach)

Comparing Oral Language to Reading Clusters

Predictor

Oral Language



Clusters for Comparison

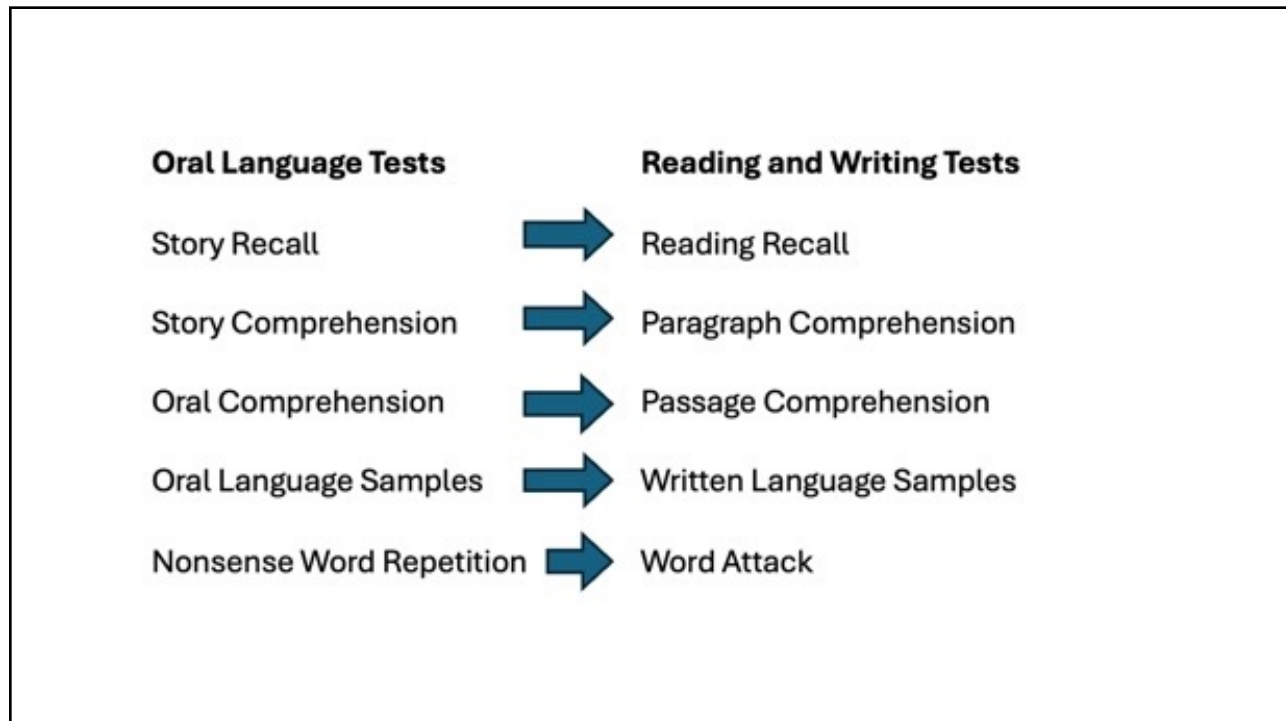
- Basic Reading Skills
- Phoneme-Grapheme Knowledge
- Reading Fluency and Rate

Is reading achievement in line with oral language ability?

Verbal Ability as an Estimate of Reading Potential

“Children should be able to comprehend, or construct, the meaning of what is being read at a level consistent with their general verbal ability” (p.55).

Source: Torgesen, J. K. (2000). Individual differences in response to early interventions in reading: The lingering problem of treatment resisters. *Learning Disabilities Research & Practice*, 15, 55-64.



Overview of Oral Language Samples

- A test of oral expression.
- The test measures expressive language ability and requires knowledge of both syntax and vocabulary.
- The task requires the examinee to respond orally to examiner prompts while viewing a picture or text on the iPad screen.
 - Early items require one or two words, then simple sentences.
 - Later items require a complete sentence and increase in complexity.

Academic Skills/Fluency/Applications

Within the WJ V ACH, you can compare:

- Academic Skills (basic academic skills)
- Academic Fluency (timed measures)
- Academic Applications (problem solving and reasoning)

Many individuals with dyslexia will have:

Academic Applications cluster > Academic Skills or Academic Fluency clusters.

Annie
Grade 4

ACADEMIC SKILLS/BRIEF ACHIEVEMENT (Grw; Gq)	481 (475-487)	8y10m	-10	76/90	93 (89-97)	32 (23-43)
-	-	-	Limited to Average	Limited to Average	Average	Average
Letter-Word Identification	473 (463-483)	8y6m	-19	53/90	90 (84-95)	25 (15-37)
-	-	-	Limited	Limited	Average	Average
Calculation	489 (479-499)	9y4m	-2	88/90	98 (90-106)	45 (25-67)
-	-	-	Average	Average	Average	Average
Spelling	481 (472-490)	9y0m	-7	80/90	96 (91-101)	39 (27-53)
-	-	-	Limited to Average	Limited to Average	Average	Average
ACADEMIC FLUENCY (Gs)	489 (485-494)	8y7m	-8	79/90	92 (87-97)	30 (20-41)
-	-	-	Limited to Average	Limited to Average	Average	Average
Math Facts Fluency	491 (487-495)	8y3m	-7	81/90	90 (84-96)	25 (14-39)
-	-	-	Limited to Average	Limited to Average	Average	Average
Sentence Reading Fluency	478 (472-483)	7y8m	-21	48/90	88 (85-91)	21 (15-28)
-	-	-	Limited	Limited	Low Average	Low Average
Sentence Writing Fluency	500 (488-512)	9y10m	3	93/90	102 (95-108)	55 (36-71)
-	-	-	Average	Average	Average	Average
ACADEMIC APPLICATIONS (Grw; Gq)	500 (493-506)	10y4m	6	94/90	107 (99-115)	68 (48-84)
-	-	-	Average	Average	Average	Average
Passage Comprehension	496 (486-506)	9y8m	1	91/90	101 (89-113)	54 (28-81)
-	-	-	Average	Average	Average	Average
Applied Problems	491 (480-502)	9y2m	-3	87/90	97 (86-108)	42 (17-71)
-	-	-	Average	Average	Average	Average
Written Language Samples	512 (500-524)	14y0m	19	99/90	119 (106-131)	89 (67-98)
-	-	-	Advanced	Advanced	High Average	High Average

Academic Skills/Fluency/Applications

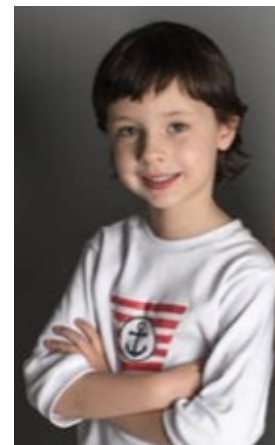
	Earned SS	Predicted SS	Difference	z Score	PR (Base Rate)	Interpretation
Academic Skills	93	99	-6	-0.78	22	
Academic Fluency	92	100	-8	-0.70	24	
Academic Applications	107	94	13	1.53	94	STRENGTH

Notes.

The predictor for each target cluster score is the average of the examinee's earned standard scores from the six tests that are not represented in the target cluster. The difference score significance is based on ± 1.50 SD (*SEE*).

The fourth question:

What are the specific recommendations for accommodations and instruction?



Diagnosis and Instruction

Diagnosis must take **second** place to instruction and must be made a **tool of instruction**, not an end in itself.



Source: Cruickshank, W. M. (1977). Least-restrictive placement: Administrative wishful thinking. *Journal of Learning Disabilities*, 10, 193–194.

“In the final analysis, reading difficulties can be prevented to the degree that the teacher has a professional understanding of her work” (p. 245).



Source: Betts, E. A. (1936). *The prevention and correction of reading difficulties*. Row, Peterson, and Company.

Background Information

- First and second grade: 40 minutes daily small group reading instruction
- Fifth grade: Tested and qualified for SLD in basic reading skills and reading fluency (Wechsler Intelligence Scale for Children [WISC-IV] Full Scale 114)
- Middle school: Continued to receive supplemental reading instruction
- Before starting high school, her IEP was changed to a 504 plan so that she could go to an out-of-district school that would not accept students with IEPs.

Prior Accommodations

- In high school, she received extended time for major tests and final exams (50% more time), had class exams read to her by the Learning Lab teacher, and used audiobooks for texts. In addition, she was granted extended time on both the SAT and ACT.
- Throughout college, Calissa has been provided with the accommodations of extended time and a quiet testing room. The reason for the quiet room is that she becomes distracted if others are moving or making noise and then she has trouble refocusing on the exam.

WJ V Dyslexia Test Set								
	Cluster	SS	PR	RPI	Test Name	SS	PR	RPI
Basic Reading Skills and Reading Fluency	Basic Reading Skills	83	13	47/90	Letter-Word Identification (Grw)	83	13	33/90
					Word Attack (Grw, Ga)	83	13	62/90
	Reading Fluency	88	21	36/90	Sentence Reading Fluency (Gs, Grw)	92	29	50/90
					Word Reading Fluency (Gs, Grw)	85	16	24/90
Phoneme-Grapheme Knowledge and Spelling	Phoneme-Grapheme Knowledge	82	11	64/90	Word Attack (Grw, Ga)	83	13	62/90
					Spelling of Sounds (Ga, Grw)	83	13	65/90
	Spelling Skills	83	13	55/90	Spelling (Grw)	85	16	46/90
					Spelling of Sounds (Ga, Grw)	83	84	65/90
Linguistic Risk Factors	Phonological Awareness	110	75	97/90	Sound Blending (Ga)	108	70	96/90
					Segmentation (Ga)	110	74	97/90
	Phonological Manipulation	91	28	79/90	Sound Deletion (Ga) ^b	90	25	76/90
					Sound Substitution (Ga) ^b	92	31	81/90
	RAN-Reading	60	<1	25/90	Rapid Picture Naming (Gs, Gr)	75	5	45/90
					Rapid Letter Naming (Gs, Gr)	62	<1	12/90
	Auditory Memory Span	84	14	59/90	Rapid Phoneme Naming (Gr, Ga)	68	2	26/90
					Memory for Words (Gwm)	82	12	49/90
Vocabulary	Vocabulary	114	82	97/90	Sentence Repetition (Gwm)	88	21	68/90
					Picture Vocabulary (Gc)	115	84	97/90
	Single Tests				Academic Vocabulary (Gc)	112	79	96/90
					Oral Reading (Grw)	95	37	82/90
					Nonsense Word Repetition (Ga, Gwm)	82	12	67/90

Extra time does not
bring extra
knowledge! It allows
individuals with
dyslexia a chance
to demonstrate
what they know.



Strengths

- Has a 3.8 GPA.
- Has an A in all of her science and math classes.
- Has completed two summer rotations in cardiology labs.
- Is highly motivated.



Dyslexia Assessment

- a) Identify at-risk indicators: family history, early speech and language difficulties
- b) Primary areas (word reading, rate, and spelling), including results of error analyses
- c) Identify specific linguistic risk factors
- d) Ability to learn when reading is not required (vocabulary and reasoning)
- e) Identify emotional and self-esteem concerns
- f) Identify strengths
- g) Determine specific accommodations and interventions

The Importance of Qualitative Information

Past Assessments

Past Interventions

Family History

Comorbid Conditions

Behavior Observations

Dyslexia: Basic Facts

- Dyslexia runs in families
- High comorbidity with other disorders (e.g., ADHD, developmental language disorder, dyscalculia)
- No one linguistic processing weakness can rule a diagnosis in or out
- Early intervention is critical
- Effective treatments provide intensive, explicit instruction in phonemic awareness, phonics, fluency, and spelling
- Accuracy is easier to improve than reading fluency
- Dyslexia affects self esteem and motivation
- Students need highly trained reading teachers

“Failure to learn to read as others do is a major catastrophe in a child’s life” (p.1).

Source:

Dolch, E. W. (1939). *A manual for remedial reading*. Champaign, IL: Garrard Press.

“My ignorance of my dyslexia only intensified my sense of isolation and hopelessness. Ignorance is perhaps the most painful aspect of a learning disability” (p. 64).

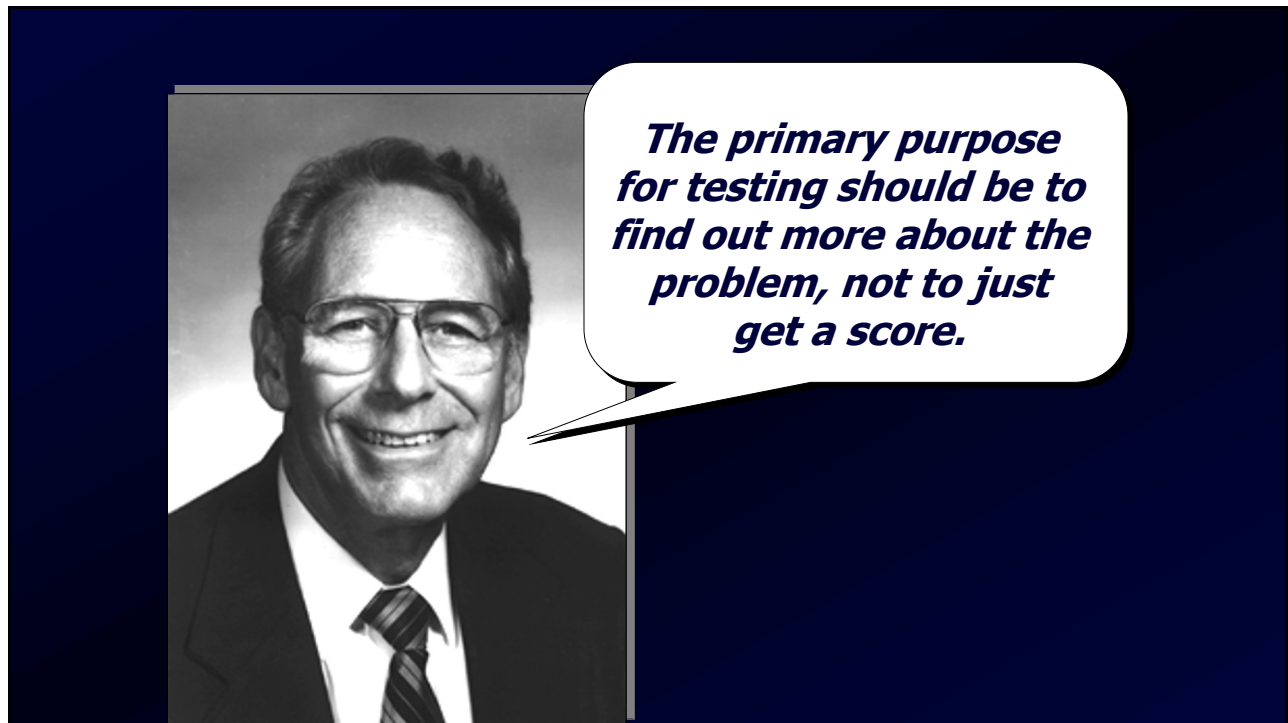
Source: Schultz, P. (2011). *My dyslexia*. W. W. Norton & Company.

“Every child would read if it were in his power to do so” (Betts, 1936, p.5).



Source: Betts, E. A. (1936). *The prevention and correction of reading difficulties*. Row, Peterson and Company.

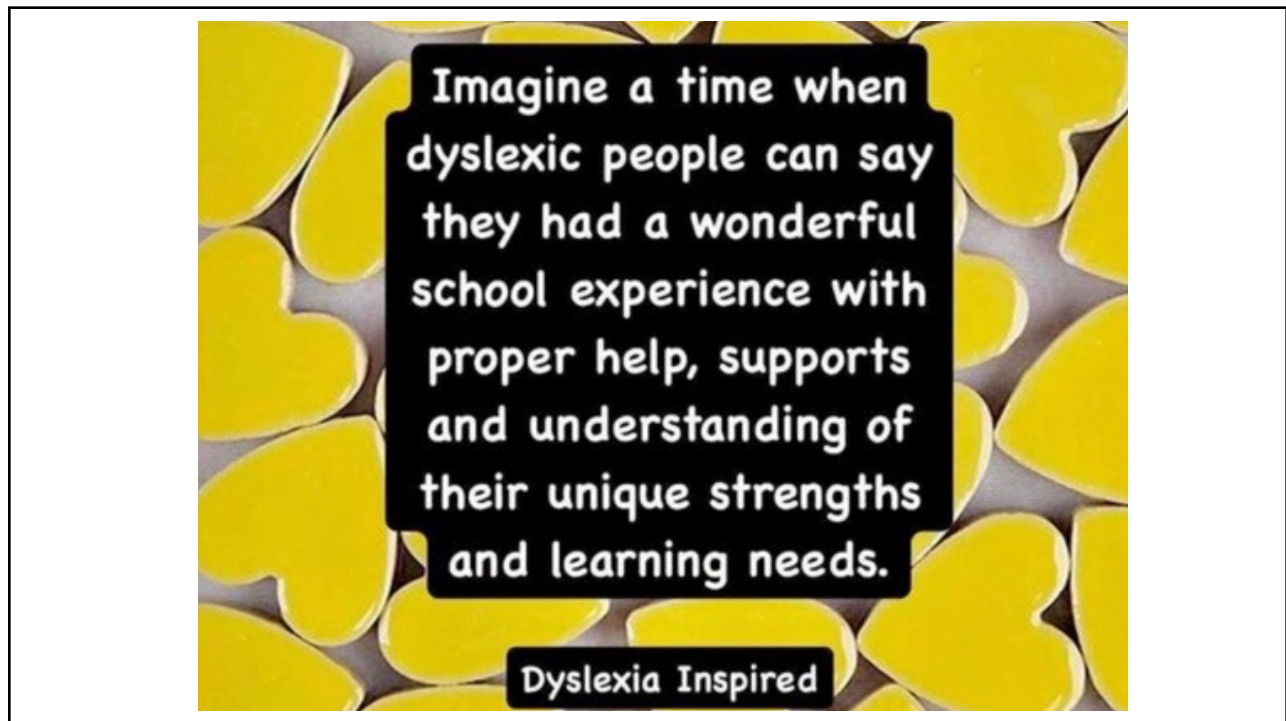
"The best way to advocate for a child with dyslexia is to be so well-trained and informed that no one can (or wants to) argue with you." ~ Dr. Kelli Sandman-Hurley



“The most notable factor that can have a positive impact on risk for dyslexia is instruction” (p.176).



Source: Catts, H. W., & Petscher, Y. A. (2022). Cumulative risk and resilience model of dyslexia. *Journal of Learning Disabilities*, 55(3), 171–184. <https://doi.org/10.1177/00222194211037062>



The Value of Tests

"If these tests will give us a basis from which we can start to understand a child's difficulties, they will have justified the time spent on them. Anything which helps educators or parents to understand any phase of development or lack of development is of immeasurable value" (p. 189).

Source: Stanger, M. A., & Donohue, E. K. (1937). *Prediction and prevention of reading difficulties*. Oxford University Press.

Thank you for all that you do!



Thank you!

