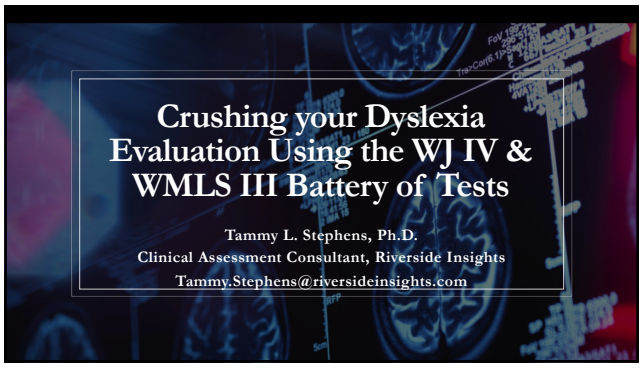

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- Disclosures
- Clinical Assessment Consultant, Riverside Insights
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- Special Education Teacher

2

3

Dyslexia Defined

A neurologically-based specific learning disability (SLD)that is characterized by *difficulties with accurate and/or fluent word recognition*, *poor reading decoding*, and *poor spelling* abilities (Proctor, Mather, & Stephens, 2015)

4

Dyslexia Defined-IDA (2002)

The International Dyslexia Association defines "dyslexia" in the following way:

Dyslexia is a specific learning disability that is neurobiological in origin. It is characterized by difficulties with accurate and/or fluent word recognition and by poor spelling and decoding abilities. These difficulties typically result from a deficit in the phonological component of language that is often unexpected in relation to other cognitive abilities and the provision of effective classroom instruction. Secondary consequences may include problems in reading comprehension and reduced reading experience that can impede growth of vocabulary and background knowledge.

Adopted by the International Dyslexia Association Board of Directors, November 12, 2002

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Dyslexia Defined- Texas

Texas Education Code (TEC) §38.003 defines dyslexia and related disorders in the following way:

- *"Dyslexia" means a disorder of constitutional origin manifested by a difficulty in learning to read, write, or spell, despite conventional instruction, adequate intelligence, and sociocultural opportunity.*
- *"Related disorders" include disorders similar to or related to dyslexia, such as developmental auditory imperception, dysphasia, specific developmental dyslexia, developmental dysgraphia, and developmental spelling disability.* TEC §38.003(d)(1)-(2) (1995)

http://www.statutes.legis.state.tx.us/Docs/ED/htm/ED.38.htm#38.003.

6

Manifestations of Dyslexia

- Students identified as having dyslexia typically experience primary difficulties in the following areas:
  - phonological awareness, including phonemic awareness and manipulation,
  - single-word reading,
  - reading fluency, and
  - spelling.
  - Consequences may include difficulties in reading comprehension and/or written expression. These difficulties in phonological awareness are ***unexpected for the student's age and educational level*** and are ***not primarily*** the result of language difference factors. Additionally, there is often a **family history** of similar difficulties.

(Texas Dyslexia Handbook, 2018)

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Primary Characteristics of Dyslexia

The following are the primary reading/spelling characteristics of dyslexia:

- Difficulty reading words in isolation
- Difficulty accurately decoding unfamiliar words
- Difficulty with oral reading (slow, inaccurate, or labored without prosody)
- Difficulty spelling

It is important to note that individuals demonstrate differences in degree of impairment and may not exhibit all the characteristics listed above.

(Texas Dyslexia Handbook, 2018)

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Characteristics and Consequences

The reading/spelling **characteristics** are most often associated with the following:

- Segmenting, blending, and manipulating sounds in words (phonemic awareness)
- Learning the names of letters and their associated sounds
- Holding information about sounds and words in memory (phonological memory)
- Rapidly recalling the names of familiar objects, colors, or letters of the alphabet (rapid naming)

Consequences of dyslexia may include the following:

- Variable difficulty with aspects of reading comprehension
- Variable difficulty with aspects of written language
- Limited vocabulary growth due to reduced reading experiences

(Texas Dyslexia Handbook, 2018)

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Dyslexia Testing - Texas

THE DYSLEXIA HANDBOOK

2018 Update

Procedures Concerning Dyslexia and Related Disorders

Texas Education Agency • Austin, Texas
November 2018

Academic Skills

- Letter knowledge
- Reading words in isolation
- Decoding unfamiliar words
- Reading fluency (rate/accuracy)
- Reading comprehension
- Spelling

Cognitive Processes

- Phonological/phonemic awareness
- Rapid naming

Additional Areas

- Vocabulary
- Listening Comprehension
- Verbal expression
- Written expression
- Handwriting
- Memory for letter sequences
- Phonological memory
- Verbal working memory
- Processing speed

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Conducting a Comprehensive Assessment of Dyslexia

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Comprehensive Evaluation of Dyslexia

- Multifaceted
- Multiple Sources of Data collected as part of the assessment process.
- Balanced integration of informal & formal data sources are necessary to fully understand the learner and his/her struggles.
- Targeted/purposeful assessment of reading & writing.

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Components of a Dyslexia Assessment

- Screener Information
- Qualitative Data
- Informal Testing
- Formal Testing

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Importance of Dyslexia Screeners

- Early identification of students with dyslexia and the implementation of early intervention programs for these students have a significant impact on their future academic success.
- According to Hall and Moats (1999):
  - Early identification is critical because the earlier the intervention, the easier it is to remediate.
  - Inexpensive screening measures identify at-risk students in mid-kindergarten with 85% accuracy.
  - If intervention is not provided before the age of 8, the probability of reading difficulties continue into high school is 75% (pp. 279-280).

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Research Supporting Dyslexia Screeners

- The rapid growth of the brain and its responsiveness to instruction in the primary years make the time from birth to 8 a critical period for literacy development (Nevills & Wolfe, 2009).
- Characteristics associated with reading difficulties are connected to spoken language.
- Difficulties in young children can be assessed through screenings of phonemic awareness and other phonological skills (Sousa, 2005).
- Eden (2015) points out "when appropriate intervention is applied early, it is not only more effective in younger children, but also increases the chances of sparing a child from the negative secondary consequences associated with reading failure, such as decline in self-confidence and depression."

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Texas Requirements for Dyslexia Screeners

- 2017: The 85th Texas Legislature passed House Bill (HB0 1886, to require that all kindergarten and first-grade public school students be screened for dyslexia and related disorders; the laws also requires that all students beyond first grade be screened or tested as appropriate.
- Texas Education Code §74.28, *Reading Diagnosis*, requires each school district to administer to students in Kindergarten, 1st grade, and 2nd grade a reading instrument to diagnose student reading development & comprehension.
  - This law also requires school districts to administer a reading instrument at the beginning of 7th grade to students who did not demonstrate reading proficiency on the 6th grade state reading assessment.
  - This law also requires the commissioner of education to select appropriate reading instruments for inclusion on the commissioner's list.

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Criteria for English & Spanish Screening Instruments

Kindergarten	First Grade
• Phonological Awareness • Phonemic Awareness • Sound-Symbol Recognition • Letter Knowledge • Decoding Sills • Spelling • Listening Comprehension	• Phonological Awareness • Phonemic Awareness • Sound-Symbol Recognition • Letter Knowledge • Decoding Skills • Spelling • Reading Rate • Reading Accuracy • Listening Comprehension

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Sources & Examples of Screening Data

Quantitative Information	Qualitative Information
Results of --- • Current screening instruments • Previous screening instruments • Formal & Informal classroom reading assessments • Additional brief and targeted skill assessments	• Observations of student during screening • Other observations of student progress • Teacher observations • Parent/guardian input (e.g., family history, early language skills) • Current student work samples • Work samples from earlier grade(s) • Intervention history

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Examples of Formal Dyslexia Screeners

- Dynamic Indicators of Basic Early Literacy Skills (DIBELS)
- EasyCBM measure
- Istation's Indicators of Progress, Early Reading (ISIP-ER)
- Texas Primary Reading Inventory (TPRI)
- Woodcock-Johnson Diagnostic Reading Battery
- Tejas LEE
- STAR Reading

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Student Behaviors Observed During Screening

- Lack of automaticity
- Difficulty sounding out words left to right
- Guessing
- Self-correcting
- Inability to focus on reading
- Avoidance behavior

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Progress Monitoring – Dyslexia

- Best practice.
- Evaluate student's response to intervention.
- Diagnostic decision making.

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Multiple Sources of Data

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Multiple Sources of Data

- The *Texas Dyslexia Handbook* (2018) requires that the evaluation team gather and consider information about the student's instructional history in the essential areas of reading:
  - Phonological awareness
  - Phonetic coding,
  - Vocabulary
  - Language structure
  - Reading Fluency
  - Reading Comprehension
- Cumulative data must be collected and considered to provide information about factors that may be contributing to, or primary to the student's struggles in reading and spelling.

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Multiple Sources of Data Collection

Data Source	Description
Family History	Student background information; Parent information about the student; Parent information about parents' learning experience; Student's emotional and social status; Economic status; Language acquisition information
School History	Grades; Work Samples; Information assessment results; Information about current classroom performance; Attendance; Tardiness
Response-to-Intervention	Scores obtained on screeners; Benchmarks; Progress monitoring charts; Student's performance in relation to peers; Types of interventions implemented
Teacher Reports	Information regarding student's performance in the classroom (academically and behaviorally); Accommodations and modifications

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Informal Data - Qualitative Information

- **Previous Assessment Results**
  - Was the student referred or receiving services from Speech/Language?
  - District dyslexia screener results
  - RTI interventions and progress monitoring results
- **Parent Information**
  - Student's history of hearing difficulty (e.g., ear infections, tubes in ears, etc.).
  - Student's developmental history around listening comprehension and language development
  - Information about the student's development of basic reading skills (e.g., phonemic awareness and phonological processing)
  - Understand the student's language proficiency
  - Is there a history of reading difficulties or attentional problems with the student (e.g., diagnose of ADD/ADHD) or in the family?

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Informal Data - Qualitative Information

- **Teacher Information**
  - Student's history of reading, listening comprehension, & language development
  - Teacher reports of classroom difficulty
  - Information about the student's reading development
- **Observation in the Classroom**
  - How does the student perform on tasks associated with reading, writing, and language?
  - How does the student perform in relation to same age/grade peers?
- **Observation During Testing**
  - Does the student ask for items to be repeated often?
- **Work samples**
  - Reading, writing, and spelling performance
  - Listening comprehension tasks

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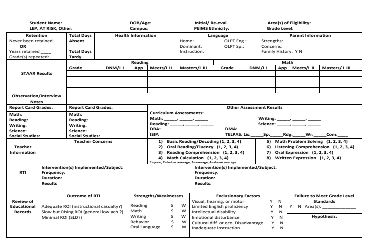

Student Name: DOB/Age: Initial/ Re-eval Area(s) of Eligibility:
LEP, AT RISK, Other: Campus: PEIMS Ethnicity: Grade Level:

Retention	Total Days	Health Information	Language	Parent Information
Never been retained OR Years retained ____ Grade(s) repeated:	Absent Total Days Tardy		Home: OLPT Eng.: Dominant: OLPT Sp.: Instruction:	Strengths: Concerns: Family History: Y N

STAAR Results	Reading					Math				
	Grade	DNM/L I	App	Meets/L II	Masters/L III	Grade	DNM/L I	App	Meets/L II	Masters/ L III

Observation/Interview Notes

Report Card Grades:	Report Card Grades:	Other Assessment Results
Math: Reading: Writing: Science: Social Studies:	Math: Reading: Writing: Science: Social Studies:	Curriculum Assessments: Math: _____, _____, _____ Writing: _____, _____, _____ Reading: _____, _____, _____ Science: _____, _____, _____ DRA: DMA: ISIP: TELPAS: Lis:_____Sp:_____Rdg:_____Wr:_____Com:____

Teacher Information	Teacher Concerns		
		1) Basic Reading/Decoding (1, 2, 3, 4) 2) Oral Reading/Fluency (1, 2, 3, 4) 3) Reading Comprehension (1, 2, 3, 4) 4) Math Calculation (1, 2, 3, 4) 1=poor, 2=below average, 3=average, 4=above average	5) Math Problem Solving (1, 2, 3, 4) 6) Listening Comprehension (1, 2, 3, 4) 7) Oral Expression (1, 2, 3, 4) 8) Written Expression (1, 2, 3, 4)

RTI		
	Intervention(s) Implemented/Subject: Frequency: Duration: Results	Intervention(s) Implemented/Subject: Frequency: Duration: Results:

Review of Educational Records	Outcome of RTI	Strengths/Weaknesses	Exclusionary Factors	Failure to Meet Grade Level Standards
	Adequate ROI (instructional casualty?) Slow but Rising ROI (general low ach.?) Minimal ROI (SLD?)	Reading S W Math S W Writing S W Behavior S W Oral Language S W	Visual, hearing, or motor Y N Limited English proficiency Y N Intellectual disability Y N Emotional disturbance Y N Cultural diff. or eco. Disadvantage Y N Inadequate instruction Y N	Y N Area(s): ____________ Hypothesis:

Sarah B Holman 9-2019

C-SEP'S MULTIPLE SOURCES OF DATA

Multiple Sources of Data Worksheet

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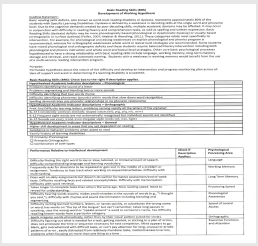
Testing Hypothesis Worksheet- Basic Reading



- Allows the teacher or diagnostician to focus on specific areas of suspected disabilities.
- Helps target assessment.
- Links reading performance relative to intellectual development with psychological processing area.
- Worksheets available for:
  - Basic Reading
  - Reading Comprehension
  - Reading Fluency
  - Written Expression

Portland Public Schools SLD Manual, 2015

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Considerations During Classroom Observation

- Is the child engaged during instruction?
- Is the child slow to follow instruction?
- Can the child remember what was said?
- Does he/she wait to see what his/her peers do before taking action?
- Does he/she require or request repetition or clarification?

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Auditory Processing

Understanding & Investigating

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Understanding the Student's Auditory History

- Understanding the student's history of hearing and ear health is vital to the assessment of Auditory Processing.
- Untreated ear infections are a serious and underestimated cause of multiple learning problems in schools. Middle ear infections result in buildup of fluid which results in difficulties with listening tasks (Willis, 2016).
- Untreated, unpredictable hearing loss can:
  - interfere with the acquisition of basic oral language skills, both vocabulary and grammar.
  - contribute to deficiencies in auditory perception and development of phonemic awareness or the ability to recognize the separate sounds that make up a word; these skills are essential for the development of reading and spelling skills (Brody, 1994).
  - impair the ability to hear against background noise and the capacity to sustain listening attention.
  - interfere with the development of attention span and organizational skills.

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Understanding the Student's Auditory History: Qualitative Data to Consider

- Data to collect and consider when assessing the student's auditory history skills:
  - Complete medical history from parent/guardian should include information regarding the student's developmental history around hearing.
    - Did the student have a history of hearing infections during childhood?
    - Did the student have tubes inserted in ears?
    - Were there issues with hearing during early development?
    - Has the child had assessment from an audiologist prior to referral?
  - Nurse's hearing screening results
  - Parent & teacher information regarding listening and attention at home and school.
  - Student information regarding his/her ability to hear what others are saying.
  - Classroom and testing observation (e.g., does he/she ask for things to be repeated often?)

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Attentional Issues vs Deficits in Auditory Processing

- An important part of the evaluation process is to tease out and differentiate whether the student is truly struggling with an auditory processing deficiency or an attentional difficulty – this can be a very tricky but important component.
- "Chicken or the egg" scenario
- Comorbidity
- Diagnosed with ADHD/ADD?
- Family history of ADHD/ADD?
- Developmental history of ear infections?

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Informal Listening Tasks

- According to Brown (2004), we can assess listening comprehension in a communicative context if we think beyond formal assessment and consider the different types of listening tasks that are required in the classroom.
  - Note-taking tests that can be scored for content, visual representation (neatness and organization), accuracy, and efficiency (e.g., use of symbols to save time);
  - Editing tasks that require the examinee to discern discrepancies between what they hear and printed text;
  - Retelling, passages heard orally and asking specific questions around main ideas, supporting details, key phrases, etc.
  - Interpretive tasks, in which listeners attend to a unit of discourse and respond to questions, thereby forcing listeners to provide evidence of their inferential thinking skills.
- Error analysis should be conducted when using these methods to tease out the breakdown in Listening comprehension.

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Formal Assessment Data

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Formal Assessment Data for a Comprehensive Dyslexia Evaluation

- WJ IV Cognitive (Optional)
- WJ IV Achievement or WMLS III
- WJ IV Oral Language or WMLS III
- C-TOPP
- TAPS-4 English/TAPS-3 Bilingual

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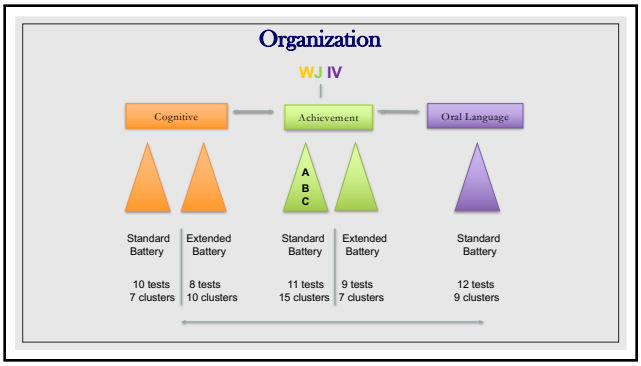

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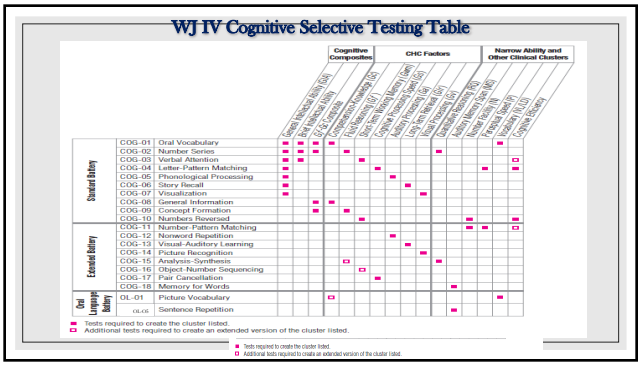

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WJ IV Achievement Tests that Assess the Primary Characteristics of Dyslexia

WJ IV Tests	What the Test Measures
ACH Test 1: Letter-Word Identification	Recognition and naming of letters and words
ACH Test 3: Spelling	Production (spelling) of words
ACH Test 7: Word Attack	Application of phonics to word reading
ACH Test 8: Oral Reading	Reading sentences aloud accurately and easily
ACH Test 9: Sentence Reading Fluency	Reading and comprehending sentences silently
ACH Test 15: Word Reading Fluency	Reading and comprehending words silently
ACH Test 16: Spelling of Sounds	Application of phonics to spelling

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WJ IV Achievement Tests that Assess the Secondary Characteristics of Dyslexia

WJ IV Tests	What the Test Measures
ACH Test 4: Passage Comprehension	Understanding of passages read silently
ACH Test 6: Writing Samples	Ability to convey meaning in writing
ACH Test 11: Sentence Writing Fluency	Ability to construct short sentences quickly
ACH Test 12: Reading Recall	Understanding of short stories read silently
ACH Test 17: Reading Vocabulary	Understanding of words read silently

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WJ IV Tests that Assess Cognitive Abilities

WJ IV Cognitive Tests	What the Test Measures
COG Test 3: Verbal Attention	Temporare store of verbal information and cue-dependent search functions in primary memory
COG Test 4: Letter-Pattern Matching	Orthographic visual perceptual discrimination ability under timed conditions
COG Test 5: Phonological Processing	Word activation, fluency of word access, and word restructuring via phological codes
COG Test 10: Numbers Reversed	Temporary storage and recoding of numeric information in primary memory
COG Test 11: Number-Pattern Matching	Numeric visual perceptual discrimination ability under timed conditions
COG Test 12: Nonword Repetition	Phonological short-term working memory, sensitivity, and capacity
COG Test 16: Object-Number Sequencing	Assembly of new cognitive structures out of information maintained in working memory
COG Test 17: Pair Cancellation	Symbolic visual perceptual discrimination ability requiring cognitive control under timed conditions
COG Test 18: Memory of Words	Storage capacity for unrelated words in primary memory

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WJ IV Tests that Assess Oral Language Abilities

WJ IV Oral Language Tests	What the Test Measures
OL Test 3: Segmentation	Ability to break apart word, progressing from compound words, to syllables, to individual phonemes
OL Test 4: Rapid Picture Naming	Fluency of recognition, retrieval, and oral production of names of common pictured objects
OL Test 5: Sentence Repetition	Auditory memory span for connected discourse
OL Test 7: Sound Blending	Ability to blend sounds into words
OL Test 8: Retrieval Fluency	Fluency of word access
OL Test 9: Sound Awareness	Ability to analyze and manipulate phonemes through rhymign and deletion tasks

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WJ IV Constructs to Assess Student's Ability to Learn Independent of Reading

WJ IV Constructs	Description
General Intellectual Ability (GIA)	General Intelligence
Gf-Gc Composite - Oral Language - Oral Expression	Reasoning & Knowledge Understanding Oral and Receptive language Expressive single-word vocabulary and ability to listen to and then repeat simple to complex sentences
- Listening comprehension	Use of syntactic and semantic cues when listening, and ability to follow simple to complex oral directions
- Vocabulary	Expressive single-word vocabulary and knowledge of word meanings, synonyms, and antonyms
Math - Calculation - Problem Solving	Computation skills and problem solving Ability to compute math problems Problem solving and logical reasoning with numbes
Knowledge - Academic Knowledge - General information	General Understanding Knowledge of science, social studies, and humanities Knowledge of one's environment and the world

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Characteristics of Dyslexia in English & Spanish

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Characteristics of Dyslexia in English and Spanish

English	Spanish
Phonological awareness Rapid naming Regular/irregular decoding Fluency Spelling	Phonological awareness (may be less pronounced) Rapid naming Regular/irregular decoding (fewer irregular words in Spanish) Fluency (often a key indicator) Spelling (may show fewer errors than in English but still more than those who do not have dyslexia)
Reading comprehension may be a weakness in both English and Spanish	

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Tests of Oral Language and Listening Comp.

WJ IV Tests of Oral Language (English and Spanish)	WMLS-III (English and Spanish)
ENGLISH	**ENGLISH**
Listening Comprehension	*Listening Comprehension*
Test 2: Oral Comprehension	Test 1: Analogies
Test 6: Understanding Directions	Test 2: Oral Comprehension
Oral Expression	*Oral Expression*
Test 1: Picture Vocabulary	Test 3: Picture Vocabulary
Test 2: Oral Comprehension	Test 4: Oral Language Expression
SPANISH	**SPANISH**
Listening Comprehension	*Listening Comprehension*
Test 10: Vocabulario sobre dibujos	Test 1: Analogias
Test 11: Comprension oral	Test 2: Compesion oral
Oral Expression	*Oral Expression*
Test 11: Comprension oral	Test 3: Vocabulario sobre dibujos
Test 12: Comprension de indicaciones	Test 4: Expression de lenguaje oral

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Tests of Auditory Processing

WJ IV & Bateria IV Cognitive	WJ IV Oral Language
English Test 5: Phonological Processing Test 12: Nonword Repetition **Bateria IV** Test 5: Procesamiento fonetico Test 12: Repeticion de palabras sin sentido	**English:** Ga: Phonetic Coding: WJ IV OL 3: Segementation WJ IV OL 7: Sound Blending WJ IV OL 9: Sound Awareness

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Academic Tests for WJ IV	
Basic Reading: Test 1: Letter-word Identification Test 7: Word Attack	**Reading Comprehension:** Test 4: Passage Comprehension Test 12: Reading Recall
Reading Fluency Test 8: Oral Reading Test 9: Sentence Reading Fluency	**Written Language** Test 3: Spelling Test 6: Writing Samples
Reading Rate Test 9: Sentence Reading Fluency Test 15: Word Reading Fluency	**Mathematics** Test 2: Applied Problems Test 5: Calculation

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Academic Tests for Bateria IV	
Destrezas basicas en lectura: Test 1: Identificacion de letras y palabras Test 7: Analisis de palabras	**Comprension de lectura** Test 4: Comprension de textos Test 12: Rememoracion de lectura
Fluidez en la lectura Test 8: Lectura oral Test 9: Fluidez en lectura de frases	**Lenguaje escrito** Test 3: Ortografia Test 6: Expresion de lenguaje escrito
	Mathematicas Test 2: Problemas aplicados Test 5: Caluclo

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Academic Tests for WMLS III	
English	**Spanish**
Test 5: Letter-word Identification Test 6: Passage Comprehension Test 7: Dictation Test 8: Written Language Expression	Test 5: Letter-word Identification Test 6: Passage Comprehension Test 7: Dictation Test 8: Written Language Expression

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Formal Assessment of Auditory Processing

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What is Auditory Processing?

- **What do we do when we hear?**
- Ability to analyze, synthesize, and discriminate auditory stimuli
- Involves the receipt of an auditory signal and the performing of some cognitive operation related to the signal
- The ability to detect and process meaningful nonverbal information in sound.
- Does not require the comprehension of language but it does contribute to the language and reading comprehension
- Involves speech, sounds or music

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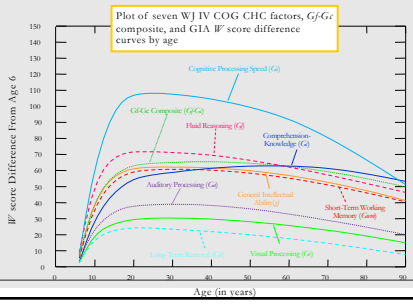
Developmental Patterns for Cognitive Processes



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Assessing Auditory Processing Using the WJ IV

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Assessing Auditory Processing Using the Woodcock Johnson IV

- **Woodcock-Johnson IV Cognitive**
  - Test *5*: Phonological Processing
  - Test 12: Nonword Repetition
- **Woodcock-Johnson IV Oral Language**
  - **Phonetic Coding**
    - Test 3: Segmentation
    - Test 7: Sound Blending

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WJ IV COG: Phonological Processing

TEST 5

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Woodcock Johnson IV Cognitive: Test *5*: Phonological Processing

- **WJ IV COG Test *5*: Phonological Processing:** a cognitively complex auditory processing (*Ga*) task that includes speed or lexical access, a narrow ability of long-term retrieval (*Glr*).
- Comprised of 3 Subtests (all 3 must be given to obtain a score):
  - Word Access
  - Word Fluency
  - Substitution
- **A median reliability of .83 in the *5*-19 year old range and a .90 in the adult age range.**

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Woodcock Johnson IV COG Test 12: Phonological Processing Task Analysis

Cognitive Test	Primary Broad CHC Ability *Narrow Ability*	Stimuli	Task Requirements	Cognitive Processes	Response
Phonological Processing • Word Access • Word Fluency • Substitution	Auditory Processing (Ga) *Phonetic Coding (PC)* *Word Fluency (Gli-FW)* *Speed of Lexical Access (Gli-LA)*	Auditory (words)	Providing a word with a specific phonic element; naming as many words as possible that begin with a specific sound; substituting part of a word to make a new word.	Semantic, activation, access, speed of lexical access	Oral (words)

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WJ IV COG: Nonword Repetition

TEST 12

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Woodcock Johnson IV Cognitive: Test 12: Nonword Repetition

- Woodcock-Johnson IV Cognitive Test 12: Nonword Repetition is a cognitively complex measure of phonological processing, measuring aspects of auditory processing (Ga) and short-term working memory (*Gwm*)
- Includes similar tasks that are sometimes described as measuring phonological short-term memory or phonological loop.
- Task: examinee listens to a nonsense word and then repeat the word exactly
- Item difficulty increases as the number of syllables in the nonsense word increases
- Ga-UM (Memory for Sound Patterns)
- Used with Test 5: Phonological Processing for form G*a*
- **Median reliability for ages 5-19 is .90 and .90 for adult age range**

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Woodcock Johnson IV COG Test 12: Nonword Repetition Task Analysis

Cognitive Test	Primary Broad CHC Ability *Narrow Ability*	Stimuli	Task Requirements	Cognitive Processes	Response
Nonword Repetition	Auditory Processing (Ga) *Phonetic Coding (PC) Memory for Sound Patterns (UM)* *Memory span (Gwm-MS)*	Auditory (nonsense words)	Listening to a nonsense word and repeating it exactly.	Analysis of a sequence of acoustic phonological elements in immediate awareness; efficiency of the phonological loop	Oral (words)

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Assessing Auditory Processing Using the WJ IV Oral Language Tests

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Assessing Auditory Processing Using the Woodcock Johnson IV Oral Language

- **Woodcock-Johnson IV Oral Language**
  - **Phonetic Coding**
    - Test 3: Segmentation
    - Test 7: Sound Blending

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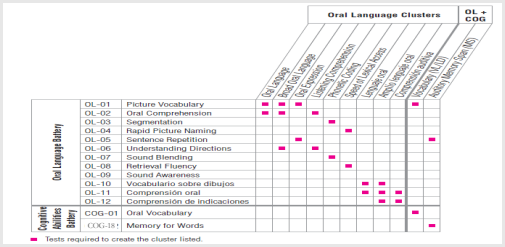
WJ IV Oral Language Selective Testing Table



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WJ IV OL: Segmentation

TEST 3

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Woodcock Johnson IV Oral Language Test 3: Segmentation

- The Woodcock Johnson IV OL Test 3: Segmentation is a measure of auditory processing (Ga). It is a phonetic coding task that measures skill in breaking apart the speech sounds in words.
- The examinee listens to words and must identify the word parts ranging from compound words to syllables to individual speech sounds (phonemes).

- This test has a median reliability of .93 in the 5 to 19 age range and .94 in the adult range.

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WJ IV Oral Language, Test 3: Segmentation

Progresses from:

- Compound words
- Syllables
- Phonemes

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WJ IV OL, Test 3: Segmentation Task Analysis

Oral Language Test	Primary Broad CHC Ability *Narrow Ability*	Stimuli	Task Requirements	Cognitive Processes	Response
Segmentation	Auditory Processing (Ga) *Phonetic Coding (PC)*	Auditory (words)	Listening to a word and breaking it into syllables or phonemes	Analysis of acoustic, phonological elements in immediate awareness	Oral (word parts and phonemes)

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WJ IV OL: Sound Blending

TEST 7

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WJ IV Oral Language, Test 7: Sound Blending

- WJ IV Oral Language Test 7, Sound Blending of the is an ***auditory processing*** test
- It is a phonetic coding task that measures skill in synthesizing speech sounds (phonemes)
- The examinee listens to a series of syllables or phonemes and then is asked to blend the sounds into a word

Sound Blending has a median reliability of .88 in the 5 to 19 age range and .94 in the adult age range.

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WJ IV OL Test 7: Sound Blending Task Analysis

Oral Language Test	Primary Broad CHC Ability *Narrow Ability*	Stimuli	Task Requirements	Cognitive Processes	Response
Sound Blending	Auditory Processing (Ga) *Phonetic Coding (PC)*	Auditory (phonemes)	Synthesizing language sounds (phonemes) to say a word	Synthesis of acoustic, phonological elements in immediate awareness; matching the sequence of elements to stored lexical entries; lexical activation and access	Oral (words)

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Additional Formal Assessments for a Comprehensive Evaluation of Auditory Processing

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Comprehensive Evaluation of Auditory Processing

- **Test of Auditory Processing Skills, 4th Edition (TAPS-4) - English**
- **Test of Auditory Processing Skills, Bilingual Edition, 3rd Edition (TAPS-3) - Spanish**
- **Comprehensive Test of Phonological Processing (C-TOPP)**

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Test of Auditory Processing (TAPS)

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Test of Auditory Processing Skills (TAPS)

- Ages 5-21 years; individually administered
- The TAPS-4 provides information about language processing and comprehension skills across three intersecting areas: phonological processing, auditory memory, and listening comprehension
- **TAPS-4 Indices:**
  - Phonological Processing Index
  - Auditory Memory Index
  - Listening Comprehension Index

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Test of Auditory Processing Skills (TAPS)

TAPS Indices & Subtests

Phonological Processing Index	Auditory Memory Index	Listening Comprehension Index
Word-Pair Discrimination	Number Memory Forward	Processing Oral Directions
Phonological Deletion	Word Memory	Auditory Comprehension
Phonological Blending	Sentence Memory	Auditory Figure-Ground
Syllabic Blending	Number Memory Reversed	

TAPS Narrow Abilities

Short-Term Memory	Auditory Processing	Comprehension Knowledge
Memory Span (MS)	Phonetic Coding (PC)	Listening Comprehension
Working Memory Capacity (MW)	Resistance to Auditory Stimulus Distortion (UR)	

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Comprehensive Test of Phonological Processing, 2nd Edition (C-TOPP-2)

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Comprehensive Test of Phonological Processing, 2nd Edition (C-TOPP-2)

- Ages 4 to 24-11; English only
- The *Comprehensive Test of Phonological Processing* (CTOPP) was published in 1999 to meet the need for an assessment of reading-related phonological processing skills
- **C-TOPP-2 Composites:**
  - Phonological Awareness (4-6 years & 7-24 years)
  - Phonological Memory (4-6 years & 7-24 years)
  - Rapid Symbolic Naming (4-6 years & 7-24 years)
  - Alternate Phonological Awareness (7-24 years)

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Comprehensive Test of Phonological Processing, 2nd Edition (C-TOPP-2)

C-TOPP-2 Composites & Subtests (Ages 4-6)

Phonological Awareness	Phonological Memory	Rapid Symbolic Naming
Elision Blending Words Sound Matching	Memory for Digits Nonword Repetition	Rapid Digit Naming Rapid Letter Naming

CTOPP-2 Composites & Subtests (Ages 7-24)

Short-Term Memory	Phonological Memory	Rapid Symbolic Naming	Alternate Phonological Awareness
Elision Blending Words Phoneme Isolation	Memory for Digits Nonword Repetition	Rapid Digit Naming Rapid Letter Naming	Blending Nonwords Segmenting Nonwords

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Considerations when Analyzing & Interpreting a Student's Performance on Auditory Processing Tests

- What is the grade/age of the student and is the skill developmentally appropriate?
- What technique was used to teach basic reading skills?
- What type of reading instruction/curriculum was used?
  - Whole Language
  - Phonics-Based
- What types of interventions has the student received in RTI?
- What is the student's primary language of instruction? How long?
- What are the reading standards for the grade level of the student for the state(s) they have lived in?
- What do the parents report on the student's language development during the earlier years?

12/4/19 80

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Interpreting Assessment Results

- It is vital that the evaluator consider all the data collected on the student when interpreting the results on the assessment
- Evaluators should merge informal and formal data for analysis
- Cross validate data to determine consistency in findings
- Tease out causes of struggles on Listening Comprehension; ruling out other causes (e.g., attention)
- Examine the impact of results on reading and language development (oral and receptive)
- Link results to interventions and instructional programming

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Oral Language	**WMLS III English** **Test 1: Analogies** **Test 2: Oral Comprehension** **Test 3: Picture Vocabulary** **Test 4: Oral Language Expression**	and	**WMLS III Spanish** **Test 1: Analogies** **Test 2: Oral Comprehension** **Test 3: Picture Vocabulary** **Test 4: Oral Language Expression**
Phonological Processing	**WJ IV** **Auditory Process. COG Tests 5, 12** **Phonetic Coding COG Tests 3, 7, 9** **TAPS-3 Phonologic Subtests 1, 2, 3** **CTOPP**	or/ and	**Batería IV** **Auditory Processing COG Tests 5, 12** **TAPS-3: SBE Phonologic Subtests 1, 2, 3**
Academic Testing	**WMLS III English** **Test 5: Letter-Word Identification** **Test 6: Passage Comprehension** **Test 7: Dictation** **Test 8: Written Lang. Expression** **WJ IV** **Basic Reading ACH 1, 7** **Reading Fluency ACH 8, 9** **Reading Comprehension ACH 4, 12** **Spelling ACH 3, 16** **Written Expression ACH 6, 11** **EasyCBM Sent. Read. Fluency Gr K-2**	and/ or	**WMLS III Spanish** **Test 5: Letter-Word Identification** **Test 6: Passage Comprehension** **Test 7: Dictation** **Test 8: Written Language Expression** **Batería IV** **Basic Reading ACH 1, 7** **Reading Fluency: ACH 8, 9** **Reading Comprehension ACH 4, 12** **Spelling: ACH 3** **Written Expression ACH 6, 11** **EasyCBM Sent. Read. Fluency Gr 1-2**

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Bilingual Dyslexia Testing

"Assessment of dyslexia for bilingual students requires knowing the student's ability in his/her two or more languages.

- By comparing the student's abilities, side-by-side, in his/her two or more languages, the examiner gets insight into whether a profile is indicative of developmental dyslexia or from issues associated with second language acquisition."

Dr. Criselda Alvarado, July 2015

Houghton Mifflin Harcourt

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Assessing Dysgraphia Using the WMLS III

Gonzalez, V. (2019)

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Dysgraphia Evaluation

- The Dyslexia Handbook-Revised 2018: Procedures Concerning Dyslexia and Related Disorders
  - Provides guidelines for dyslexia evaluations, but does not for related disorders such as dysgraphia
  - Guidelines for dysgraphia evaluations are developed by each district following federal and state laws

THE DYSLEXIA HANDBOOK

2018 Update

Procedures Concerning Dyslexia and Related Disorders

Texas Education Agency | Austin, Texas

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Dysgraphia Evaluation

- There is not one definitive definition for dysgraphia.
- Many research-based definitions of dysgraphia exist:

A School Wide Process for Dysgraphia Assessment, 2015

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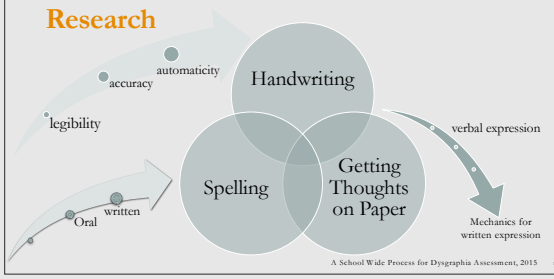
Common Difficulties found in the Research



A School Wide Process for Dysgraphia Assessment, 2015

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Building an Assessment Battery

Primary Characteristics
- Difficulties with handwriting
- Difficulties with spelling
- Difficulties getting thoughts on paper

Associated Processes
- Graphomotor processing
- Orthographic processing
- Phonological processing

Unexpected in Relation to …
- Other cognitive abilities
- Effective classroom instruction

A School Wide Process for Dysgraphia Assessment, 2015 88

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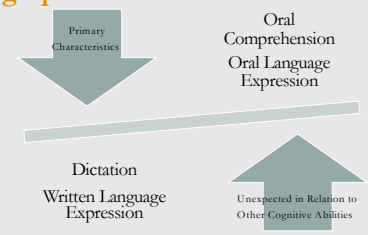
Dysgraphia Evaluation and the WMLS III



A School Wide Process for Dysgraphia Assessment, 2015 89

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Dysgraphia Evaluation and the WMLS III

- Opportunity for evaluator to collect qualitative data for handwriting difficulties:
  - Observe how much time and effort to complete task (automaticity)
  - Observe for body posture, handedness, pencil grip, controlled strokes, and erasures
  - Review completed tasks for letter formation, size and proportion, spacing, slant, alignment and line quality

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Linking Assessment Results to Intervention

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WJ IV WIIIP: Comprehensive and Dyslexia Reports

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WJ IV Interpretation and Instructional Interventions Program (WIIIP)

- Report writing program delivered through the WJ IV web-based scoring platform
- Facilitates report writing so professional can focus on interpretation and program planning
- Links *WJ* IV results to interventions
- Makes testing more instructionally relevant by responding to professionals' needs
- ***Two Reports:***
  - Comprehensive Report
  - Dyslexia Report

www.wjwiiip.com

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Checklists and Observation Forms

- Classroom Behavior Observation Form
- Self-Report Checklist
- Parent Checklist
  - English and Spanish
  - School Age and Preschool
- Reason for Referral Checklist
- Teacher Checklist
  - School Age and Preschool
- Writing Evaluation Scale Checklist
- Dyslexia Evaluation Checklist
  - Parent and Teacher

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Dyslexia Evaluation Checklist: Parent & Teacher Forms

DYSLEXIA EVALUATION CHECKLIST: PARENT FORM

Ms. Christine Scott, Antonio's mother, provided the following information regarding Antonio's background and skills by completing the *Dyslexia Evaluation Checklist: Parent Form* on October 10, 2018.

Antonio's Development
Has a history of ear infections (had ear tubes inserted).
Had speech therapy.
Had some difficulty pronouncing new words.
Mispronounces some words by putting the sounds in the wrong order or leaving sounds out (aminal for animal).
Has difficulty remembering the details of a story that has been read aloud.

DYSLEXIA EVALUATION CHECKLIST: TEACHER FORM

Ms. Lisa Smith, Antonio's teacher, provided the following information regarding Antonio's reading skills by completing the *Dyslexia Evaluation Checklist: Teacher Form* on October 08, 2018.

Antonio's Oral Language
Has difficulty rhyming words.
Has trouble retrieving words quickly.
Often uses the wrong word when speaking or has difficulty recalling a word.

Antonio's Nonreading Skills
Is creative (loves to sing.).
Enjoys visual-spatial tasks (enjoys building with blocks.).
Enjoys activities that do not require reading (sports and athletic activities.).

Parent Checklist:
- Development
- Family History
- Nonreading Skills
- Prereading Skills
- Reading Skills
- Spelling and Writing

Teacher Checklist:
- Oral Language
- Nonreading Skills
- Basic Reading Skills
- Attitude Towards Reading
- Reading Proficiency and Comprehension
- Spelling and Writing

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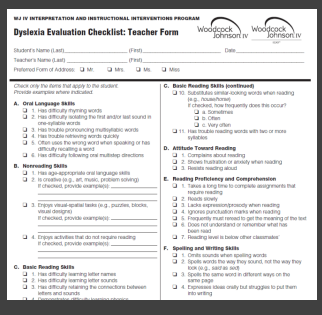
TEACHER – DYSLEXIA CHECKLIST



WJ IV INTERPRETATION AND INSTRUCTIONAL INTERVENTIONS PROGRAM

Dyslexia Evaluation Checklist: Teacher Form

Woodcock Johnson IV | Woodcock Johnson IV

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

C. Basic Reading Skills (continued)
- ❑ 10. Substitutes similar-looking words when reading (e.g., house/home)
  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. Complains 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

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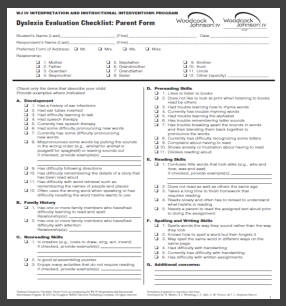
PARENT-DYSLEXIA CHECKLIST



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Instructional Interventions & Accommodations

- Based on student performance and developmental level
- Written in narrative style for reports
- Generated when performance falls within limited or lower range
- Interventions – Cog, Ach, OL
- Accommodations – Cog, OL
- Available on both Comprehensive and Dyslexia Reports

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INSTRUCTIONAL RECOMMENDATIONS AND INTERVENTIONS

Marissa may gain the most from reading instruction presented within the late first grade to early second grade range. In addition, Marissa may benefit from a program of supplemental reading interventions. The interventions should be explicit (skills should be taught directly), intensive (a concentrated number of related learning opportunities should be provided), delivered in small groups of 2-7 students when possible, and should employ scaffold learning principles with emotional support.

Marissa may benefit from direct, focused, small-group reading instruction for at least 30 minutes each day. Provide multiple opportunities for Marissa to read both words and sentences orally and to respond to questions. Provide clear feedback to Marissa when she makes an error.

Reading stories aloud to students is a good way for a teacher to enrich students' vocabulary. Reading aloud also introduces the students to comprehension skills such as determining the main idea in the story or the cause-and-effect demonstrated by the story.

Echo reading provides a model of fluent reading and a means for Marissa to improve fluency. Read a sentence aloud while Marissa silently reads along in the text. Then have Marissa echo the sentence by reading it aloud independently. Gradually increase the length of the passage that is read aloud.

Audio-recorded books are an effective way to demonstrate and practice fluent reading. Select an appropriate recording and matching text for Marissa. When Marissa first uses the audio recording, it would be best to break the recording into small, manageable passages. Have Marissa listen to the recording while following along in the text. The first time through, suggest that she listen and follow along in the text by moving her finger under each word as it is read. Then, the next time through the text, have Marissa try reading along, keeping pace with the recording. Repeat until the desired level of fluency is achieved.

INSTRUCTIONAL INTERVENTIONS & ACCOMMODATIONS

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Use letters of the alphabet to form consonant-vowel-consonant (CVC) words that contain the –ot rime. Place letter tiles for o and t in front of Marissa. Then place the tiles for c, d, h, g, p, h, and r on the table. Demonstrate how different words can be formed using the various letters. Place the c tile in front of the o and t tiles and say, "This makes the word cot. If I re change the c to d," remove the c tile and place the d tile in front of the ot, "the new word is _____." Ask Marissa to create each word you say by changing the first letter. Include words such as cot, dot, got, not, pot, hot, and rot for practice.

Review how to make a plural by adding s to the end of a word. Write the following words on the board: car, cat, dog, bug, pin, pen, wig, pig, bat, and rock. Ask Marissa to read each word. Provide assistance as needed. Then ask her to add on s to the end of each word and read them again. Ask whether the letter s sounds the same at the end of each word. Use cats and bugs to illustrate. Say each word slowly and ask Marissa what sound the s is making. Point out that for cats the s sounds like /s/ and for bugs the s sounds like /z/. Using the words on the board, have Marissa read each again and tell you if the s is saying /s/ or /z/.

Item-Level Analysis

- Suggests formative interventions
- Interventions are intended to identify a specific skill deficit and provide an intervention for teaching the underlying skill or concept
  - Test 1: Letter-Word Identification
  - Test 2: Applied Problems
  - Test 3: Spelling
  - Test 5: Calculation
  - Test 7: Word Attack

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Comprehensive Report

Generates narrative description of WJ and child's performance along with instructional recommendations and interventions

Sections:

Background Information (gathered from checklists)	Classroom Behavior Observations (gathered from checklist)	Test Session Observations (qualitative observations from test record)	Interpretive Overview of Scores	Instructional Recommendations and Interventions	Table of Scores	Appendix – Detailed Interpretation of Clusters and Tests

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INTERPRETIVE OVERVIEW OF SCORES

The scores derived from this administration can be interpreted at different levels. Interpretation of Marissa's performance can be based upon single tests and/or upon logical-empirical combinations of tests called clusters. Variations within groups of scores are evaluated to determine if any relative strengths and weaknesses exist.

Marissa's overall academic achievement, as measured by the WJ IV Broad Achievement standard score, is in the low range of others her age.

Among the WJ IV achievement measures, Marissa's standard scores are within the average range for one cluster (Written Expression) and three tests (Writing Samples, Oral Reading, and Sentence Writing Fluency). Her scores are within the low average range for five clusters (Reading Fluency, Written Language, Broad Written Language, Academic Applications, and Academic Fluency) and four tests (Passage Comprehension, Word Attack, Sentence Reading Fluency, and Math Facts Fluency); within the low range for seven clusters (Reading, Broad Reading, Basic Reading Skills, Mathematics, Broad Mathematics, Math Calculation Skills, and Academic Skills) and three tests (Applied Problems, Spelling, and Calculation); and within the very low range for one test (Letter-Word Identification).

An analysis of variations among Marissa's achievement scores in broad curricular areas suggests that Sentence Writing Fluency and Written Expression are relative strengths for her. She demonstrated a relative weakness in Letter-Word Identification.

In a cross-domain analysis of variations among Marissa's achievement cluster scores, Marissa demonstrated a relative weakness in Academic Skills.

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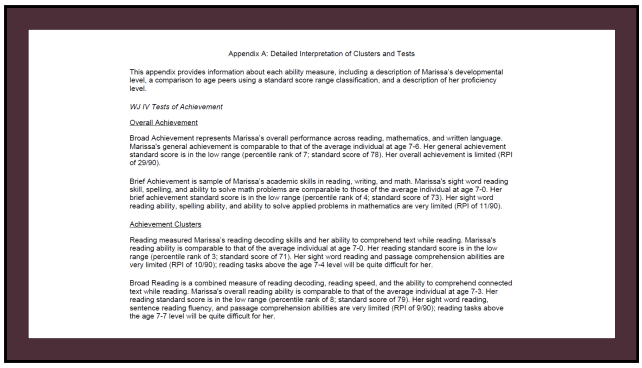

Appendix A: Detailed Interpretation of Clusters and Tests

This appendix provides information about each ability measure, including a description of Marissa's developmental level, a comparison to age peers using a standard score range classification, and a description of her proficiency level.

WJ IV Tests of Achievement

Overall Achievement

Broad Achievement represents Marissa's overall performance across reading, mathematics, and written language. Marissa's general achievement is comparable to that of the average individual at age 7-6. Her general achievement standard score is in the low range (percentile rank of 7; standard score of 78). Her overall achievement is limited (RPI of 29/90).

Brief Achievement is sample of Marissa's academic skills in reading, writing, and math. Marissa's sight word reading skill, spelling, and ability to solve math problems are comparable to those of the average individual at age 7-0. Her brief achievement standard score is in the low range (percentile rank of 4; standard score of 73). Her sight word reading ability, spelling ability, and ability to solve applied problems in mathematics are very limited (RPI of 11/90).

Achievement Clusters

Reading measured Marissa's reading decoding skills and her ability to comprehend text while reading. Marissa's reading ability is comparable to that of the average individual at age 7-0. Her reading standard score is in the low range (percentile rank of 3; standard score of 71). Her sight word reading and passage comprehension abilities are very limited (RPI of 10/90); reading tasks above the age 7-4 level will be quite difficult for her.

Broad Reading is a combined measure of reading decoding, reading speed, and the ability to comprehend connected text while reading. Marissa's overall reading ability is comparable to that of the average individual at age 7-3. Her reading standard score is in the low range (percentile rank of 8; standard score of 79). Her sight word reading, sentence reading fluency, and passage comprehension abilities are very limited (RPI of 9/90); reading tasks above the age 7-7 level will be quite difficult for her.

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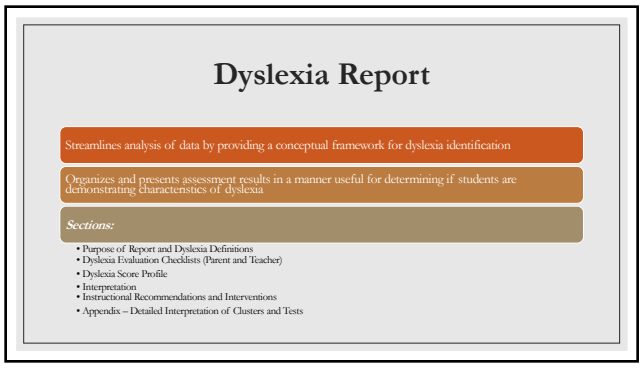

Dyslexia Report

Streamlines analysis of data by providing a conceptual framework for dyslexia identification

Organizes and presents assessment results in a manner useful for determining if students are demonstrating characteristics of dyslexia

Sections:

- Purpose of Report and Dyslexia Definitions
- Dyslexia Evaluation Checklists (Parent and Teacher)
- Dyslexia Score Profile
- Interpretation
- Instructional Recommendations and Interventions
- Appendix – Detailed Interpretation of Clusters and Tests

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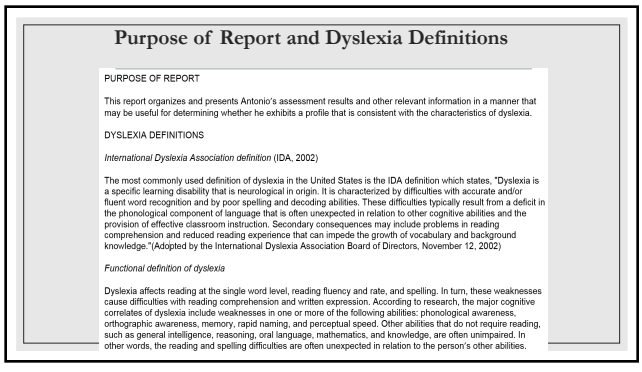

Purpose of Report and Dyslexia Definitions

PURPOSE OF REPORT

This report organizes and presents Antonio's assessment results and other relevant information in a manner that may be useful for determining whether he exhibits a profile that is consistent with the characteristics of dyslexia.

DYSLEXIA DEFINITIONS

International Dyslexia Association definition (IDA, 2002)

The most commonly used definition of dyslexia in the United States is the IDA definition which states, "Dyslexia is a specific learning disability that is neurological in origin. It is characterized by difficulties with accurate and/or fluent word recognition and by poor spelling and decoding abilities. These difficulties typically result from a deficit in the phonological component of language that is often unexpected in relation to other cognitive abilities and the provision of effective classroom instruction. Secondary consequences may include problems in reading comprehension and reduced reading experience that can impede the growth of vocabulary and background knowledge."(Adopted by the International Dyslexia Association Board of Directors, November 12, 2002)

Functional definition of dyslexia

Dyslexia affects reading at the single word level, reading fluency and rate, and spelling. In turn, these weaknesses cause difficulties with reading comprehension and written expression. According to research, the major cognitive correlates of dyslexia include weaknesses in one or more of the following abilities: phonological awareness, orthographic awareness, memory, rapid naming, and perceptual speed. Other abilities that do not require reading, such as general intelligence, reasoning, oral language, mathematics, and knowledge, are often unimpaired. In other words, the reading and spelling difficulties are often unexpected in relation to the person's other abilities.

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Dyslexia Score Profiles

DYSLEXIA SCORE PROFILE

The table below presents a conceptual framework for interpreting Antonio's performance on the WJ IV tests and clusters that assess primary reading and spelling skills. Difficulties in these areas may be associated with dyslexia. Scores appear in the table for tests and clusters that were administered.

Primary Areas of Reading and Spelling

Area Tested	Battery	Cluster/Test	SS	PR	SS Classification	RPI	Proficiency
Basic Reading Skills	WJ IV ACH	**Basic Reading Skills**	62	0.5	Very Low	1/90	Extremely Limited
		1: Letter-Word Identification	63	1	Very Low	0/90	Extremely Limited
		7: Word Attack	56	0.2	Very Low	3/90	Extremely Limited
Reading Fluency / Rate	WJ IV ACH	**Reading Fluency**	66	1	Very Low	1/90	Extremely Limited
		8: Oral Reading	57	0.2	Very Low	1/90	Extremely Limited
		9: Sentence Reading Fluency	78	7	Low	1/90	Extremely Limited
		Reading Rate	74	4	Low	1/90	Extremely Limited
		9: Sentence Reading Fluency	78	7	Low	1/90	Extremely Limited
		15: Word Reading Fluency	73	4	Low	0/90	Extremely Limited
Spelling	WJ IV ACH	3: Spelling	66	1	Very Low	3/90	Very Limited
		16: Spelling of Sounds	68	2	Very Low	20/90	Very Limited
Phoneme-Grapheme Knowledge	WJ IV ACH	**Phoneme-Grapheme Knowledge**	62	1	Very Low	8/90	Very Limited
		7: Word Attack	56	0.2	Very Low	3/90	Extremely Limited
		16: Spelling of Sounds	68	2	Very Low	20/90	Very Limited

Adapted from Dyslexia Profile, © 2017 C. Proctor, N. Mather, T. Stephens-Pisecco, and L. E. Jaffe

Among the primary reading and spelling areas assessed, Antonio's standard scores are within the low range for one cluster (Reading Rate) and two tests (Sentence Reading Fluency and Word Reading Fluency). Antonio's standard scores are within the very low range for three clusters (Basic Reading Skills, Reading Fluency and Phoneme-Grapheme Knowledge) and five tests (Spelling, Letter-Word Identification, Word Attack, Oral Reading and Spelling of Sounds).

Score Profiles available in the following areas:
- Primary Areas of Reading and Spelling
- Secondary Reading and Writing Skills
- Ability Measures
- Cognitive and Linguistic Abilities

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Interpretation

INTERPRETATION

Primary Reading, Spelling, and Writing Difficulties

To determine whether Antonio's reading performance is commensurate with his cognitive ability, the *GF-Gc* Composite, Broad Oral Language, and Academic Knowledge clusters were administered. The *GF-Gc* Composite is a combined measure of fluid reasoning and comprehension-knowledge. The Broad Oral Language cluster is a measure of oral language competency. The Academic Knowledge cluster is a measure of acquired knowledge in the areas of science, social studies, and humanities. Successful performance on these clusters does not require reading. These ability measures were then compared to his reading achievement results.

	Predictor of Ability to Learn When Reading is Not Required		
Primary Reading and Spelling Skills	*GF-Gc* Composite	Broad Oral Language	Academic Knowledge
Basic Reading Skills	✓	✓	✓
Reading Fluency	✓	✓	✓
Reading Rate	✓	✓	✓
Phoneme-Grapheme Knowledge	✓	✓	Comparison Not available

✓ indicates that the primary reading and spelling skill is significantly lower than the ability measure used as the predictor, based on a 1.5 *SD* (*SEE*) cutoff.

GF-Gc Composite/Reading Comparisons

Compared to Antonio's intellectual level as measured by the *GF-Gc* Composite, his Basic Reading Skills, Reading Fluency, Reading Rate, and Phoneme-Grapheme Knowledge scores are unexpectedly low.

Broad Oral Language/Reading Comparisons

Compared to Antonio's level of oral language ability as measured by the Broad Oral Language cluster, his Basic Reading Skills, Reading Fluency, Reading Rate, and Phoneme-Grapheme Knowledge scores are unexpectedly low.

Interpretation available in the following areas:
- Primary Reading, Spelling, and Writing Difficulties
- Secondary Reading and Writing Difficulties
- Possible Contributing Factors: Cognitive and Linguistic Abilities

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Instructional Recommendations and Interventions

INSTRUCTIONAL RECOMMENDATIONS AND INTERVENTIONS

Antonio may gain the most from reading instruction presented within the middle to late kindergarten range. In addition, Antonio may benefit from a program of supplemental reading interventions. The interventions should be explicit (skills should be taught directly), intensive (a concentrated number of related learning opportunities should be provided), delivered in small groups of 2-7 students when possible, and should employ scaffold learning principles with emotional support.

Phoneme matching activities may help Antonio identify initial phonemes in a word. For example, provide picture cards that begin with one of three different consonant sounds. Provide a worksheet divided into three columns with one consonant written at the top of each column. Ask Antonio to say the name of the picture for each card and place it in the appropriate column. Eventually, more consonants can be introduced, and Antonio can sort the picture cards into groups with the same beginning sound without using a worksheet.

Antonio may benefit from an assisted-reading intervention. In assisted reading, Antonio reads aloud while an accomplished reader follows along silently. If Antonio makes an error, the helping reader corrects his error. Antonio should then repeat the word and continue reading.

Use the following sequence to teach Antonio segmentation. Begin with tasks that require Antonio to break apart compound words (e.g., *raincoat*). Then progress to syllables. Have Antonio clap the number of words or use markers to represent each word part. When Antonio has learned to break words into syllables, teach him how to segment short words into onsets and rimes (the first part of a syllable and the ending part of a syllable) and then into individual phonemes.

Based on noted limitations in Antonio's cognitive performance:

Accommodations that may help compensate for Antonio's limitations in perceptual speed might include providing extended time, reducing the quantity of work required (breaking large assignments into two or more component assignments), eliminating or limiting copying activities, and increasing wait times after questions are asked as well as after responses are given.

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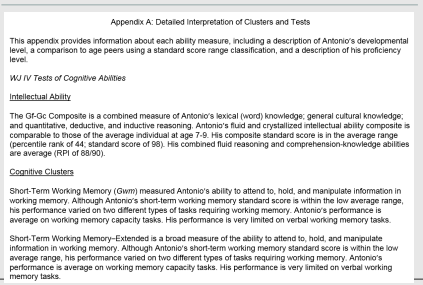
Detailed Interpretation of Clusters and Tests



Appendix A: Detailed Interpretation of Clusters and Tests

This appendix provides information about each ability measure, including a description of Antonio's developmental level, a comparison to age peers using a standard score range classification, and a description of his proficiency level.

WJ IV Tests of Cognitive Abilities

Intellectual Ability

The Gf-Gc Composite is a combined measure of Antonio's lexical (word) knowledge; general cultural knowledge; and quantitative, deductive, and inductive reasoning. Antonio's fluid and crystallized intellectual ability composite is comparable to those of the average individual at age 7-9. His composite standard score is in the average range (percentile rank of 44; standard score of 98). His combined fluid reasoning and comprehension-knowledge abilities are average (RPI of 88/90).

Cognitive Clusters

Short-Term Working Memory (*Gwm*) measured Antonio's ability to attend to, hold, and manipulate information in working memory. Although Antonio's short-term working memory standard score is within the low average range, his performance varied on two different types of tasks requiring working memory. Antonio's performance is average on working memory capacity tasks. His performance is very limited on verbal working memory tasks.

Short-Term Working Memory–Extended is a broad measure of the ability to attend to, hold, and manipulate information in working memory. Although Antonio's short-term working memory standard score is within the low average range, his performance varied on two different types of tasks requiring working memory. Antonio's performance is average on working memory capacity tasks. His performance is very limited on verbal working memory tasks.

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WIIIP Dyslexia Report

Required Tests and Clusters	

Ability Cluster
- Three possible, choose one
- None require reading
	- Gf-Gc Composite (WJ IV Cog)
	  • Oral Vocabulary, Number Series, General Information, Concept Formation
	- Academic Knowledge (WJ IV Ach)
	  • Science, Social Studies, Humanities
	- Broad Oral Language (WJ IV OL)
	  • Picture Vocabulary, Oral Comprehension, Understanding Directions

Achievement Measures	- Spelling - Letter-Word Identification - Word Attack - Spelling of Sounds - Oral Reading (Age 7+, Grade 2+) - Sentence Reading Fluency (Age 7+, Grade 2+)

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WIIIP Dyslexia Report

Optional Tests and Clusters		
WJ IV Achievement	**WJ IV Cognitive**	**WJ IV Oral Language**
- Word Reading Fluency - Passage Comprehension - Reading Recall - Reading Vocabulary - Writing Samples - Sentence Writing Fluency	- Verbal Attention - Numbers Reversed - Object-Number Sequencing - Letter-Pattern Matching - Number-Pattern Matching - Phonological Processing - Nonword Repetition - Story Recall - Visual-Auditory Learning - Numbers Reversed	- Sound Awareness - Segmentation - Sound Blending - Rapid Picture Naming - Retrieval Fluency - Sentence Repetition - Memory for Words - Picture Vocabulary - Oral Comprehension - Understanding Directions - Oral Vocabulary

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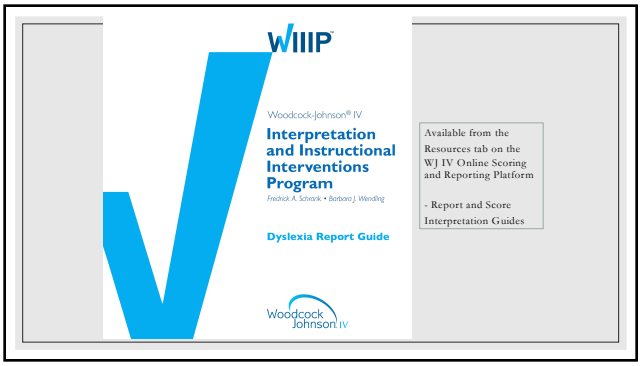

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