Woodcock Johnson® IV

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Use of the *Woodcock-Johnson® IV* for the Assessment of Dyslexia

Carla M. Proctor, PhD, LDT

Nancy Mather, PhD

Tammy L. Stephens, PhD

Houghton Mifflin Harcourt

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Use of the *Woodcock-Johnson® IV* for the Assessment of Dyslexia

The purposes of this Assessment Service Bulletin are to (a) describe the useful features of the Woodcock-Johnson® IV *(WJ IV™; Schrank, McGrew, & Mather, 2014a) that may be included in an evaluation for dyslexia, (b) present the WJ IV Dyslexia Profile of Scores, and (c) describe the WJ IV Dyslexia Summary Report. The WJ IV includes three co-normed batteries that can be used together or independently: the* Woodcock-Johnson IV Tests of Cognitive Abilities *(WJ IV COG; Schrank, McGrew, & Mather, 2014b), the* Woodcock-Johnson IV Tests of Oral Language *(WJ IV OL; Schrank, Mather, & McGrew, 2014b), and the* Woodcock-Johnson IV Tests of Achievement *(WJ IV ACH; Schrank, Mather, & McGrew, 2014a). The authors begin with a brief discussion of the characteristics and definitions of dyslexia, and then describe how the various clusters and tests of the WJ IV may be used in the WJ IV Dyslexia Profile of Scores to assist in the organization of assessment data and in the determination of dyslexia. The WJ IV Dyslexia Summary Report provides an overview of the characteristics of dyslexia, the possible contributing factors, and the strengths that may exist. The WJ IV Dyslexia Summary Report and WJ IV Dyslexia Profile of Scores were developed from concepts presented in* Essentials of Dyslexia: Assessment and Intervention *(Mather & Wendling, 2012) and* The Dyslexia Handbook: Procedures Concerning Dyslexia and Related Disorders *(Texas Education Agency, 2014).*

What Is Dyslexia?

The word *dyslexia* comes from the Greek words *dys*, meaning "impaired," and *lexia*, meaning "word." Dyslexia is a cognitive disorder of neurological origin that is manifested in deficiencies in decoding, word-level reading skills, and encoding, or the ability to spell words in print (Mather & Wendling, 2012; Vellutino & Fletcher, 2007). The difficulty pronouncing printed words in turn affects the speed or rate of reading. Nearly all states identify dyslexia as a type of learning disability that warrants services through special education. A few states including Texas, however, identify and address dyslexia through both general and special education (Texas Education Agency, 2014).

Parents and educators may be puzzled over the difference between a specific learning disability and dyslexia. Actually, dyslexia is a one of the specific types of disorders included in the category of specific learning disability (Mather & Wendling, 2012; Shastry, 2007). Dyslexia has been recognized by the American Psychiatric Association (APA, 2013) as an alternative term for the diagnosis of specific learning disorder with impairment in reading 315.00 (F81.0) in the *Diagnostic and Statistical Manual of Mental Disorders* (5th ed.; DSM-5; American Psychiatric Association [APA], 2013). In some states, it is referred to as a "specific reading disability." Dyslexia refers to a pattern of learning difficulties characterized by problems with accurate or fluent word recognition, poor decoding, and poor spelling abilities. The APA also notes, "If dyslexia is used to specify this particular pattern of difficulties, it is important also to specify any additional

difficulties that are present, such as difficulties with reading comprehension or math reasoning" (APA, 2013, p. 67).

Definitions of dyslexia guide the process of assessment for identification. Most definitions identify it as a "neurobiological disorder," which means that differences in the brain affect the development of reading and spelling skills. The most commonly used definition for dyslexia in the United States, which was developed by the International Dyslexia Association (IDA, 2015), 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 growth of vocabulary and background knowledge. (para. 1)

This definition, adopted by the IDA Board in November of 2002, describes dyslexia as a language-based learning disorder that originates from a basic problem in phonological processing and affects reading and writing. Other international definitions of dyslexia expand upon the cognitive factors that may contribute to dyslexia. For example, the British Dyslexia Association uses this definition:

> Dyslexia is a specific learning difficulty which mainly affects the development of literacy and language related skills. It is likely to be present at birth and to be lifelong in its effects. It is characterized by difficulties with phonological processing, rapid naming, working memory, processing speed, and the automatic development of skills that may not match up to an individual's other cognitive abilities. (British Dyslexia Association Management Board, 2007)

An evaluation for dyslexia includes assessment in the primary reading and spelling achievement areas in which difficulties are characteristic of dyslexia: letter identification, letter/sound associations, sight word identification, phonics (decoding), reading fluency and rate, and spelling. The evaluation may also include secondary areas, such as reading comprehension and written expression, which may also be affected by dyslexia. To make an accurate diagnosis, the evaluator or evaluation team must also consider family and school history, teacher reports, self-reports, social and emotional status, and current classroom performance.

The diagnosis of dyslexia is further complicated in certain cases, such as when English is not the student's first language or when the student is gifted in other areas. Dyslexia occurs across all languages; however, it affects individuals differently depending on the characteristics of the language they speak and read (Mather & Wendling, 2012, p. 223). The nature of the writing system, or orthography, impacts the reading process. Thus, the characteristics of dyslexia in languages other than English may differ. For example, in a shallow or transparent written language (i.e., one that has predictable letter/sound correspondences) such as Finnish, Spanish, or German, decoding may not be a significant indicator of dyslexia. Phonological awareness is easily developed in transparent orthographies and/or languages with simple syllable structures. Students with dyslexia who have been or are being taught to read and write using a language with a shallow orthography may be able to decode real words and nonwords adequately. Thus, for these students, a slow reading rate is more characteristic of dyslexia than is poor

phonological processing (Alvarado & Bilingual Special Education Network of Texas, 2011; Mather & Wendling, 2012; Texas Education Agency, 2014).

Gifted students with dyslexia, often referred to as twice-exceptional learners, are often not diagnosed appropriately because they may excel in some subject areas, including reading comprehension. Strengths in oral language, knowledge, and reasoning enable them to compensate for weak decoding and encoding skills. They may skip or misread many words of a textual passage but understand the gist of the passage. Their difficulties in decoding are often attributed to carelessness, inattention, or limited motivation; therefore, their dyslexia is often overlooked (Mather & Wendling, 2012; Uhry & Clark, 2005). When evaluating gifted students for dyslexia, careful consideration must be made to determine to what extent the discrepancies between the student's strengths and weaknesses cause frustration and interfere with the full development of the student's abilities (Silverman, 2009, 2013). Relative weaknesses, which are unexpected in comparison to the person's average to superior relative strengths, can suggest the existence of dyslexia, even in the absence of below average scores on standardized tests (Silverman, 2013). Thus, a gifted student with dyslexia may obtain reading accuracy scores in the average range, particularly if the student has received systematic interventions in the past.

Types of Scores for Interpretation

The WJ IV Dyslexia Profile of Scores allows evaluators to input standard scores, percentile ranks, and relative proficiency index scores for the various clusters and tests administered. To facilitate interpretation, standard scores and/or percentile ranks are inserted in separate columns for low/below average, average, or high/above average scores. A standard score (SS) describes a student's performance relative to the average performance of a comparison group of students of the same age or grade. It is based on an average score being assigned a value of 100 with a standard deviation of 15. The range of standard scores reported by the WJ IV online scoring and reporting program (Schrank & Dailey, 2014, 2015) is <40 to >160. A percentile rank (PR) indicates a student's relative standing in a same-age or same-grade comparison group on a scale of 1 to 99 (out of 100) or .1 to 99.9 (out of 1000). The student's percentile rank indicates the percentage of students from the comparison group who had scores the same as or lower than the student. For example, a percentile rank of 70 indicates that 70% of the students had a score less than or equal to that score. Table 1 clarifies the WJ IV classification of student performance based on both standard scores and percentile ranks.

Table 1.
WJ IV Classification of Standard Score and Percentile Rank Ranges

Standard Score Range	Percentile Rank Range	WJ IV Classification
131 and above	98 to 99.9	Very Superior
121 to 130	92 to 97	Superior
111 to 120	76 to 91	High Average
90 to 110	25 to 75	Average
80 to 89	9 to 24	Low Average
70 to 79	3 to 8	Low
69 and below	0.1 to 2	Very Low

In contrast to the norm-referenced standard scores, criterion-referenced scores provide functional information by measuring a student's performance against a fixed set of predetermined criteria or learning standards. They are used to evaluate whether students have acquired a specific body of knowledge or skill set. The relative proficiency index (RPI) is a criterion-referenced score that predicts a student's level of proficiency on tasks that typical age or grade peers would perform with 90% proficiency. For example, an RPI of 55/90 on Test 1: Letter-Word Identification of the *Woodcock-Johnson IV Tests of Achievement* (WJ IV ACH; Schrank, Mather, & McGrew, 2014a) would indicate that on similar tasks, the student would demonstrate 55% proficiency, whereas average age or grade peers would demonstrate 90% accuracy. The RPI can document a performance deficit that may not be apparent based on the peer comparison (standard score; Mather & Jaffe, in press). The instructional implications of the RPI classifications are indicated in Table 2.

Table 2.
Instructional Implications of the Relative Proficiency Index

RPI[a]	Instructional Implications
100/90	Extremely easy
98/90 to 100/90	Very easy
95/90 to 98/90	Easy
82/90 to 95/90	Manageable
67/90 to 82/90	Difficult
24/90 to 67/90	Very difficult
3/90 to 24/90	Extremely difficult
0/90 to 3/90	Nearly impossible

[a] Note that there is some category overlap at the tails of RPI ranges; for example, an RPI of 67/90 corresponds with both "Difficult" and "Very difficult" instructional implications. This phenomenon appears because RPIs are computed using *W* difference score ranges, which *are* mutually exclusive. An RPI of 67/90 in the "Difficult" category corresponds with a *W* difference score of –13, while an RPI of 67/90 in the "Very difficult" category corresponds with a *W* difference of –14.

Standard and Extended Cluster Scores

Clusters from both the standard and extended *Woodcock-Johnson IV* (WJ IV) test batteries are represented in the WJ IV Dyslexia Profile of Scores. If an extended cluster is administered, the evaluator checks the box for the extended cluster. The additional test that forms the extended cluster is indicated in the list of tests below the cluster name. The following section describes the specific clusters and tests included in the WJ IV Dyslexia Profile of Scores.

Primary Reading and Spelling Achievement Areas

As indicated above, individuals with dyslexia exhibit weaknesses in any combination of primary reading and spelling achievement areas including letter-sound relationships, basic reading skills, reading fluency and rate, and spelling. Figure 1 presents a portion of the WJ IV Dyslexia Profile of Scores reflecting the WJ IV ACH measures that would typically be included in an assessment of these abilities.

Figure 1.
Scores in Primary Reading and Writing Difficulties.

WJ IV Dyslexia Profile of Scores

Area Tested		Battery	Test Date	Cluster/Test	Low/Below Average SS <40–89 PR <1–24	Average SS 90–110 PR 25–75	High/Above Average SS >110 PR >75	RPI	Comments
Primary Reading and Writing Difficulties	Letter-Sound	Informal		Letter Identification: Case: Lower __/26 Upper __/26 Letter sounds: C __/21 V __/5 (short)					
	Basic Read. Skills	WJ IV ACH		Test 1: Letter-Word Identification				__/90	
				Test 7: Word Attack				__/90	
	Reading Fluency (rate & accuracy)	WJ IV ACH		**Reading Fluency**				__/90	
				Test 8: Oral Reading				__/90	
				Test 9: Sentence Reading Fluency				__/90	
				Reading Rate				__/90	
				Test 9: Sentence Reading Fluency				__/90	
				Test 15: Word Reading Fluency				__/90	
	Spell.	WJ IV ACH		Test 3: Spelling				__/90	
				Test 16: Spelling of Sounds				__/90	
	Phoneme-Grapheme Knowledge	WJ IV ACH		**Phoneme-Grapheme Knowledge**				__/90	
				Test 7: Word Attack				__/90	
				Test 16: Spelling of Sounds				__/90	

Letter-Sound Knowledge

In order to read, the beginning reader must have full knowledge of the connections between phonemes, or the sounds of our language, and graphemes, the printed letters that represent these sounds. The insight that letters are used to represent sounds is often referred to as the alphabetic principle. This letter-sound knowledge provides the foundation for the development of word identification and spelling. Weaknesses in letter-sound knowledge impede development in word decoding, reading fluency, and spelling (Mather & Wendling, 2012, 2015). Informal measures of letter-sound knowledge require the student to identify the names and sounds of randomly ordered letters of the alphabet. WJ IV ACH Test 1: Letter-Word Identification (naming letters) and Test 7: Word Attack (identifying the sounds of letters) begin with items measuring this basic knowledge.

Basic Reading Skills

Basic reading skills include both sight word reading and phonics. Sight word reading involves recognizing real words at once, without an analysis of the sounds or parts. Phonics involves the application of sound-letter correspondences to pronounce unfamiliar words. This ability to apply phoneme-grapheme (sound-letter) relationships to reading is typically measured by having students read and spell nonsense words

(sometimes called nonwords or pseudowords) that conform to English spelling patterns. The WJ IV ACH Basic Reading Skills cluster includes Test 1: Letter-Word Identification and Test 7: Word Attack, which measure real and nonsense word reading, respectively.

Reading Fluency

Reading fluency is often described as the bridge between basic reading skills and reading comprehension (Shaywitz, 2003). The ability to read fluently requires reading words accurately and easily, reading with sufficient speed, and reading with expression (prosody). These skills facilitate the understanding of what is being read (National Reading Panel, 2000). The WJ IV ACH measures accuracy, rate, and prosody. The WJ IV ACH Reading Fluency cluster includes Test 8: Oral Reading and Test 9: Sentence Reading Fluency. The WJ IV ACH Reading Rate cluster includes Test 9: Sentence Reading Fluency and Test 15: Word Reading Fluency, both of which are timed and read silently.

Spelling

Spelling, or encoding, involves many of the same skills as reading, such as using phoneme-grapheme associations and common orthographic spelling patterns; however, spelling is much more difficult because it requires the writer to reproduce the entire word rather than just recognize it. Spelling requires a student to mentally segment the word into sounds, retrieve the appropriate grapheme used to represent each sound, and then produce the word (Mather & Wendling, 2012). The two tests of the WJ IV ACH that directly assess spelling are Test 3: Spelling (spelling real words) and Test 16: Spelling of Sounds (spelling nonsense words). Although spelling is not penalized on Test 6: Writing Samples and Test 11: Sentence Writing Fluency, the types of errors a student makes in context may be observed (Mather & Wendling, 2014c).

Phoneme-Grapheme Knowledge

The WJ IV ACH Phoneme-Grapheme Knowledge cluster is particularly relevant to the diagnosis of dyslexia. This cluster includes Test 7: Word Attack and Test 16: Spelling of Sounds, both of which measure facility with nonsense words. One enduring characteristic of many students with dyslexia is a weakness in the application of phonics to both reading and spelling.

Secondary Reading and Writing Achievement Areas

The primary characteristics of dyslexia may result in secondary academic difficulties in the areas of reading comprehension and written expression. Secondary academic difficulty areas are depicted in Figure 2.

Figure 2.
Scores in Secondary Reading and Writing Difficulties.

WJ IV Dyslexia Profile of Scores

Area Tested		Battery	Test Date	Cluster/Test	Low/Below Average SS <40–89 PR <1–24	Average SS 90–110 PR 25–75	High/Above Average SS >110 PR >75	RPI	Comments
Secondary Reading and Writing Difficulties	Reading Comprehension	WJ IV ACH		**Reading Comprehension** ☐ Extended				__/90	
				Test 4: Passage Comprehension				__/90	
				Test 12: Reading Recall				__/90	
				Test 17: Reading Vocabulary (Extended)				__/90	
	Written Expression	WJ IV ACH		**Written Expression**				__/90	
				Test 6: Writing Samples				__/90	
				Test 11: Sentence Writing Fluency				__/90	

Reading Comprehension

Difficulties with letter-sound associations, decoding, rate, and/or prosody of reading may adversely impact reading comprehension. The WJ IV ACH Reading Comprehension cluster includes Test 4: Passage Comprehension, Test 12: Reading Recall, and, for an extended version of the cluster, Test 17: Reading Vocabulary. Because many students with dyslexia have average or advanced oral language abilities, their performance often improves with increased context and meaning. Thus, a common pattern for students with dyslexia is scores ranging from highest to lowest on the following reading comprehension tests: Test 12: Reading Recall (longer passages) > Test 4: Passage Comprehension (sentences) > Test 17: Reading Vocabulary (single words). Furthermore, scores on all of these tests would be higher than on measures of basic reading skills and rate. The scores may fall within the average or above average range depending on prior interventions and the student's other cognitive and linguistic abilities.

Written Expression

Difficulties with letter-sound associations and encoding may negatively impact written expression. Thus, written expression is not a primary problem of dyslexia, but it may result from spelling difficulties that affect the composition and transcription of text with accuracy, fluency, and clarity (Moats & Dakin, 2008). The WJ IV ACH Written Expression cluster includes Test 6: Writing Samples and Test 11: Sentence Writing Fluency. A common pattern on the WJ IV ACH writing tests for students with dyslexia is scores from highest to lowest as follows: Test 6: Writing Samples > Test 11: Sentence Writing Fluency > Test 3: Spelling > Test 16: Spelling of Sounds.

Cognitive Abilities: Possible Contributing Factors

The reading and spelling difficulties of students with dyslexia stem from weaknesses in underlying cognitive and linguistic abilities. Possible contributing factors include weaknesses in phonological awareness, orthographic awareness, memory, rapid naming, and processing and perceptual speed. Figure 3 depicts several of the cognitive and linguistic abilities that can affect reading and spelling development.

Figure 3.
Relevant Cognitive Ability scores.

WJ IV Dyslexia Profile of Scores

Area Tested		Battery	Test Date	Cluster/Test	Low/Below Average SS <40–89 PR <1–24	Average SS 90–110 PR 25–75	High/Above Average SS >110 PR >75	RPI	Comments
Cognitive Abilities: Possible Contributing Factors	Phonological Awareness	WJ IV COG		**Auditory Processing**				__/90	
				Test 5: Phonological Processing				__/90	
				Test 12: Nonword Repetition				__/90	
		WJ IV OL		**Phonetic Coding**				__/90	
				Test 3: Segmentation				__/90	
				Test 7: Sound Blending				__/90	
				Test 9: Sound Awareness				__/90	
	Orthographic Awareness	WJ IV COG		Test 4: Letter-Pattern Matching				__/90	
				Test 11: Number-Pattern Matching				__/90	
		WJ IV ACH		Test 1: Letter-Word Identification				__/90	
				Test 3: Spelling				__/90	
				Test 7: Word Attack				__/90	
				Test 16: Spelling of Sounds				__/90	
	Memory	WJ IV OL		**Auditory Memory Span**				__/90	
				Test 5: Sentence Repetition				__/90	
		WJ IV COG		Test 18: Memory for Words				__/90	
				Short-Term Working Memory ☐ Extended				__/90	
				Test 3: Verbal Attention				__/90	
				Test 10: Numbers Reversed				__/90	
				Test 16: Object-Number Sequencing (Extended)				__/90	
	Rapid Naming	WJ IV OL		**Speed of Lexical Access**				__/90	
				Test 4: Rapid Picture Naming				__/90	
				Test 8: Retrieval Fluency				__/90	
	Processing Speed	WJ IV COG		**Cognitive Processing Speed (*Gs*)**				__/90	
				Test 4: Letter-Pattern Matching				__/90	
				Test 17: Pair Cancellation				__/90	
		WJ IV COG		**Perceptual Speed**				__/90	
				Test 4: Letter-Pattern Matching				__/90	
				Test 11: Number-Pattern Matching				__/90	

Phonological Awareness

Learning to read and spell depends on the ability to perceive and manipulate the individual sounds in the words of printed language. A critical first step is becoming aware that speech can be divided or segmented into a series of discrete sounds, which is a phonological awareness skill. Phonological awareness weaknesses contribute to weaknesses in word recognition, word decoding, and spelling. The WJ IV measures phonological awareness through several clusters and tests: the *Woodcock-Johnson IV*

Tests of Cognitive Abilities (WJ IV COG; Schrank, McGrew, & Mather, 2014b) Auditory Processing cluster (Test 5: Phonological Processing and Test 12: Nonword Repetition), and the *Woodcock-Johnson IV Tests of Oral Language* (WJ IV OL; Schrank, Mather, & McGrew, 2014b) Phonetic Coding cluster (Test 3: Segmentation and Test 7: Sound Blending) and Test 9: Sound Awareness.

Two notes of caution are relevant. If the student exhibits reading and spelling difficulties and currently has average phonological/phonemic processing, the evaluator should review the student's history to determine if there is evidence of previous interventions with phonological/phonemic awareness. Previous effective instruction in these areas may remediate phonological awareness skills in isolation. Thus, average phonological awareness scores alone do not rule out the existence of dyslexia. Ongoing phonological processing deficits can also be exhibited in word reading and/or spelling (Texas Education Agency, 2014, p. 22). Caution also must be taken when evaluating students who are bilingual. These students may have weaknesses in phonological awareness because of a lack of exposure and instruction regarding English language sounds, rather than having dyslexia.

Orthographic Awareness

Orthography is the system of printed symbols that are used to represent a spoken language. Orthographic awareness involves the ability to decode and encode these visual representations including letters, letter patterns, numbers, and punctuation. It includes the ability to picture and hold the appearance of a letter, letter string, or word in the mind. Orthographic awareness facilitates memory of word patterns to assist with quick and effortless pronunciation and spelling. Thus, orthographic awareness is fundamental to both reading and spelling (Mather & Wendling, 2012). The WJ IV assesses orthographic awareness through WJ IV COG Test 4: Letter-Pattern Matching and Test 11: Number-Pattern Matching, and WJ IV ACH Test 1: Letter-Word Identification, Test 3: Spelling, Test 7: Word Attack, and Test 16: Spelling of Sounds.

Memory

Memory is the ability to store and retrieve information. Memory span involves the ability to listen to and then repeat information verbatim within a few seconds. Working memory involves the ability to hold information in immediate awareness while manipulating or transforming the information in some way. Both memory span and working memory are related to reading development (Mather & Wendling, 2012). The WJ IV OL includes Test 5: Sentence Repetition, and the WJ IV COG includes Test 18: Memory for Words, which combine to form the Auditory Memory Span cluster. The WJ IV COG also includes the Short-Term Working Memory cluster (Test 3: Verbal Attention, and Test 10: Numbers Reversed, and, for an extended version of the cluster, Test 16: Object-Number Sequencing).

Rapid Naming

Rapid naming refers to the ability to rapidly retrieve the names of familiar objects or symbols. Weaknesses in rapid naming are related to weaknesses in reading accuracy, reading rate, and reading comprehension. In kindergarten and first grade, early naming speed deficits are good predictors of students who will struggle with reading fluency further on in school (Wolf, 2007). This may be because both naming speed and reading

involve multiple perceptual, lexical, and motoric processes. Both rapid naming and reading tasks require the quick integration of visual-verbal information. The smooth integration of contributions from visual (orthographic symbols), verbal (phonological labels and sounds), and attentional (conscious effort) systems is essential for skilled reading (Neuhaus & Swank, 2002). The WJ IV OL includes the Speed of Lexical Access cluster (Test 4: Rapid Picture Naming and Test 8: Retrieval Fluency).

Processing and Perceptual Speed

Processing speed refers to the speed of input (e.g., of perception), speed of output (e.g., motor response), and the speed of integrating these processes (Mather & Wendling, 2012). Perceptual speed is a combined measure of orthographic and numeric visual perceptual discrimination ability under timed conditions. (Schrank, Decker, & Garruto, in press). Evidence of perceptual speed deficits has been noted on both linguistic and nonlinguistic tasks for individuals with dyslexia (Shanahan et al., 2006). Weaknesses in processing and perceptual speed are directly related to weaknesses in reading accuracy, reading rate, and reading comprehension (Mather & Wendling, 2012). The WJ IV COG includes the Cognitive Processing Speed cluster (Test 4: Letter-Pattern Matching and Test 17: Pair Cancellation) and Perceptual Speed cluster (Test 4: Letter-Pattern Matching and Test 11: Number-Pattern Matching).

Ability to Learn Independent of Reading

One of the hallmarks of dyslexia is that the primary and secondary characteristics and related cognitive ability weaknesses are unexpected in relation to other cognitive and achievement abilities: in other words, the ability to learn independent of reading. These developmental differences can be determined by comparing a person's strengths to his or her reading and spelling development. Areas of strength may include general intelligence, reasoning and knowledge, oral language, mathematics, and academic knowledge. Figure 4 depicts areas to consider in establishing the unique strengths of a student.

Figure 4.
Scores not related to reading: possible strengths.

WJ IV Dyslexia Profile of Scores

Area Tested		Battery	Test Date	Cluster/Test	Low/Below Average SS <40–89 PR <1–24	Average SS 90–110 PR 25–75	High/Above Average SS >110 PR >75	RPI	Comments
Ability to Learn Independent of Reading	General Intelligence	WJ IV COG		**General Intellectual Ability (GIA)**				__/90	
				Test 1: Oral Vocabulary (*Gc*)				__/90	
				Test 2: Number Series (*Gf*)				__/90	
				Test 3: Verbal Attention (*Gwm*)				__/90	
				Test 4: Letter-Pattern Matching (*Gs*)				__/90	
				Test 5: Phonological Processing (*Ga*)				__/90	
				Test 6: Story Recall (*Glr*)				__/90	
				Test 7: Visualization (*Gv*)				__/90	
	Reasoning and Knowledge	WJ IV COG		***Gf-Gc* Composite**				__/90	
				Test 1: Oral Vocabulary (*Gc*)				__/90	
				Test 2: Number Series (*Gf*)				__/90	
				Test 8: General Information (*Gc*)				__/90	
				Test 9: Concept Formation (*Gf*)				__/90	
	Oral Language	WJ IV OL		**Oral Expression**				__/90	
				Test 1: Picture Vocabulary				__/90	
				Test 5: Sentence Repetition				__/90	
				Listening Comprehension				__/90	
				Test 2: Oral Comprehension				__/90	
				Test 6: Understanding Directions				__/90	
				Vocabulary				__/90	
				Test 1: Picture Vocabulary				__/90	
		WJ IV COG		Test 1: Oral Vocabulary				__/90	
	Math	WJ IV ACH		**Math Calculation Skills**				__/90	
				Test 5: Calculation				__/90	
				Test 10: Math Facts Fluency				__/90	
				Math Problem Solving				__/90	
				Test 2: Applied Problems				__/90	
				Test 13: Number Matrices				__/90	
	Academic Knowledge	WJ IV ACH		**Academic Knowledge**				__/90	
				Test 18: Science				__/90	
				Test 19: Social Studies				__/90	
				Test 20: Humanities				__/90	
		WJ IV COG		Test 8: General Information				__/90	

General Intelligence

General intelligence represents overall cognitive performance. The WJ IV COG includes the General Intellectual Ability (GIA) cluster, which consists of seven tests, each of which measures a different Cattell-Horn-Carroll (CHC) ability: Test 1: Oral Vocabulary (*Gc*), Test 2: Number Series (*Gf*), Test 3: Verbal Attention (*Gwm*), Test 4: Letter-Pattern Matching (*Gs*), Test 5: Phonological Processing (*Ga*), Test 6: Story Recall (*Glr*), and Test 7: Visualization (*Gv*) (Mather & Wendling, 2014a). These seven abbreviations stand for the following CHC abilities:

Gc: comprehension-knowledge—knowledge of language and culture

Gf: fluid reasoning—ability to engage in novel problem solving

Gwm: working memory—ability to hold and transform information

Gs: cognitive processing speed—ability to perform simple symbolic tasks quickly

Ga: auditory processing—ability to hear and manipulate speech sounds

Glr: long-term retrieval—ability to store and retrieve associations

Gv: visual processing—ability to think with patterns and designs

As a generalization, many individuals with dyslexia will have strengths in *Gc*, *Gf*, and *Gv* but weaknesses in one or more of these CHC abilities: *Gwm*, *Gs*, *Ga*, and *Glr*. Typically, the more areas of weakness, the greater difficulty the student will have learning to read and spell.

Reasoning and Knowledge

Reasoning (*Gf*) and knowledge (*Gc*) are the two highest-order factors of general intelligence. The WJ IV COG provides a *Gf-Gc* Composite score composed of tests of fluid reasoning (*Gf*) (Test 2: Number Series and Test 9: Concept Formation) and comprehension-knowledge (*Gc*), also referred to as crystallized intelligence (Test 1: Oral Vocabulary and Test 8: General Information).

Oral Language

Oral language includes verbal comprehension, listening ability, and lexical knowledge (word knowledge or vocabulary) (Mather & Wendling, 2014b). Clusters in the WJ IV OL include Oral Expression (Test 1: Picture Vocabulary and Test 5: Sentence Repetition), Listening Comprehension (Test 2: Oral Comprehension and Test 6: Understanding Directions), and Vocabulary (WJ IV OL Test 1: Picture Vocabulary and WJ IV COG Test 1: Oral Vocabulary).

Mathematics

Mathematics achievement (quantitative knowledge ability) includes both computational and problem solving skills. The WJ IV ACH includes the Math Calculation Skills cluster (Test 5: Calculation and Test 10: Math Facts Fluency) and Math Problem Solving cluster (Test 2: Applied Problems and Test 13: Number Matrices).

Academic Knowledge

Knowledge (*Gc*) includes language-based academic knowledge. The WJ IV ACH provides an Academic Knowledge cluster (Test 18: Science, Test 19: Social Studies, and Test 20: Humanities), and the WJ IV COG provides Test 8: General Information.

Use of the Variation and Comparison Procedures

The WJ IV also provides several variation and comparison procedures that help an evaluator document specific strengths and weaknesses. The variations include intra-cognitive, intra-oral language, and intra-achievement. Within the WJ IV ACH, a variation procedure is available that compares performance on three clusters: Academic Skills (basic academic skills), Academic Fluency (timed measures), and Academic Applications (problem solving and reasoning). Many individuals with dyslexia obtain higher scores on the Academic Applications cluster than on the Academic Skills and/or Academic Fluency clusters.

The comparison procedures use one score to predict performance in specific academic areas. For dyslexia evaluations, the three most relevant comparison procedures are (a) the WJ IV COG *Gf-Gc* Composite to the WJ IV ACH Basic Reading Skills, Phoneme-Grapheme Knowledge, and Reading Rate clusters; (b) the WJ IV OL Broad Oral Language cluster to the same three WJ IV ACH clusters listed above; and (c) the WJ IV ACH Academic Knowledge cluster to these same three WJ IV ACH clusters. Students with dyslexia often have higher scores on measures of oral language, knowledge, and reasoning and thus will often show discrepancies between these abilities and their levels of reading and spelling development.

Conclusion

The WJ IV contains useful features to employ when conducting a comprehensive dyslexia evaluation. The WJ IV Dyslexia Profile of Scores and the WJ IV Dyslexia Summary Report are valuable resources for documenting and organizing the WJ IV test scores to assist the evaluator with the diagnosis of dyslexia. Although the WJ IV provides useful qualitative and quantitative information, the diagnosis of dyslexia involves more than just the interpretation of a student's performance on standardized tests. To make an accurate diagnosis, the evaluator or evaluation team must also consider family and school history, teacher reports, self-reports, social and emotional status, and current classroom performance. In addition, the evaluation team must have an understanding of the symptoms and characteristics of dyslexia. Because of the success of prior interventions, a student with dyslexia may not currently require special services, or the student may need an accommodation plan rather than an Individualized Educational Program. In another case, a parent may decide to provide interventions through a private facility or tutor rather than through a public school. These types of decisions should be discussed and considered by a well-informed multidisciplinary school team. Regardless of whether or not a student is deemed eligible for services and/or accommodations, the evaluation should provide solid recommendations that are designed to enhance the student's reading and spelling development. The WJ IV Dyslexia Profile of Scores and the WJ IV Dyslexia Summary Report can assist professionals in targeting specific areas for these interventions.

Acknowledgments

We would like to thank Barbara J. Wendling, Fredrick A. Schrank, and Eric Snader for their helpful review and comments on the initial draft of this paper.

Appendices

Appendix A provides a completed sample WJ IV Dyslexia Summary Report and WJ IV Dyslexia Profile of Scores obtained by Brayden Jackson (pseudonym), a student who is completing third grade. He was referred by his teacher because of concerns about his reading. Appendix B follows with the WJ IV Score Report for Brayden. Although more information is needed, such as attendance, vision and hearing screening, classroom reading assessments, prior accommodations or interventions provided, academic progress reports, samples of school work, early reading evaluation results, parent conference notes, state assessment results, observations of the student's response to instructions, history of evaluations and the student's response to instruction (Texas Education Agency, 2014, p. 17), an initial analysis of Brayden's results is consistent with a diagnosis of dyslexia. A blank WJ IV Dyslexia Summary Report and WJ IV Dyslexia Profile of Scores are provided in Appendix C. Permission is granted to reprint this document for use with individual students.

Appendix A

WJ IV DYSLEXIA SUMMARY REPORT

Name Brayden Jackson Date of Birth 5/16/2006 ID _____

School _____ Grade 3 Date 6/2/2015

The [name of state] Education Code [§ statute number] defines dyslexia in the following way:

International Dyslexia Association Definition (2002)
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.

Dyslexia affects reading at the single word level, reading fluency, and spelling. In turn, these deficits cause difficulties with reading comprehension and written expression. Oral language, math abilities, and general knowledge that do not require reading are often unimpaired. According to research, the major cognitive correlates of dyslexia include weaknesses in one or more of the following abilities: phonetic coding, orthographic awareness, short-term working memory, rapid automatized naming (RAN), and/or perceptual speed. The reading and spelling difficulties are often unexpected in relation to the student's other cognitive, oral language, or academic abilities.

Primary Reading and Writing Difficulties

Check if lower than the ability to learn when reading is not required (e.g., cognitive abilities, listening comprehension, mathematics):

- ☐ Letter knowledge
  - ☐ Letter names
  - ☐ Letter sounds
- ☒ Basic reading skills
  - ☒ Sight word recognition (Letter-Word Identification)
  - ☒ Phonics (Word Attack)
- ☒ Reading rate and fluency (Oral Reading, Sentence Reading Fluency, Word Reading Fluency)
- ☒ Spelling in isolation (Spelling and Spelling of Sounds)
- ☒ Spelling in context (Writing Samples)
- ☒ Phoneme-Grapheme Knowledge (Word Attack and Spelling of Sounds)

Secondary Reading and Writing Difficulties

Check if lower than the ability to learn when reading is not required (e.g., cognitive abilities, listening comprehension, mathematics):

- ☐ Reading Comprehension
- ☐ Written Expression

Cognitive Abilities: Possible Contributing Factors

Check if lower than the ability to learn when reading is not required (e.g., other cognitive abilities, listening comprehension, mathematics):

- ☒ Phonological Awareness[1]
  - ☐ Auditory Processing
  - ☐ Phonetic Coding
- ☒ Orthographic Awareness[2]
- ☐ Memory
  - ☐ Auditory Memory Span
  - ☒ Short-Term Working Memory
- ☐ Rapid Naming (Speed of Lexical Access)
- ☒ Processing Speed
  - ☒ Cognitive Processing Speed
  - ☒ Perceptual Speed

Ability to Learn When Reading Is Not Required

Check if higher than reading and spelling skills:

General Intelligence
- ☒ GIA (general intelligence)
- ☒ *Gf-Gc* Composite (reasoning and knowledge)

Oral Language
- ☒ Oral Expression
- ☐ Listening Comprehension
- ☒ Vocabulary[3]

Math
- ☒ Math Calculation Skills
- ☒ Math Problem Solving

Knowledge
- ☒ Academic Knowledge[3]
- ☒ General Information[3]

Committee Consideration

- ☒ Data demonstrate characteristics of dyslexia.
- ☐ Data do not demonstrate characteristics of dyslexia.
- ☐ Data demonstrate characteristics of dyslexia; however, these characteristics would not be consistent with [State] guidelines for the identification of dyslexia.

_____ **Evaluator** _____ **Date**

_____ **Evaluator** _____ **Date**

WJ IV Dyslexia Profile of Scores

Area Tested		Battery	Test Date	Cluster/Test	Low/Below Average SS <40–89 PR <1–24	Average SS 90–110 PR 25–75	High/Above Average SS >110 PR >75	RPI	Comments
Primary Reading and Writing Difficulties	Letter-Sound	Informal		Letter Identification: Case: Lower __/26 Upper __/26 Letter sounds: C __/21 V __/5 (short)					
	Basic Read. Skills	WJ IV ACH	6/2/15	Test 1: Letter-Word Identification	80			14/90	
			6/2/15	Test 7: Word Attack	84			55/90	
	Reading Fluency (rate & accuracy)	WJ IV ACH	6/2/15	**Reading Fluency**	77			8/90	
			6/2/15	Test 8: Oral Reading	87			57/90	
			6/2/15	Test 9: Sentence Reading Fluency	76			1/90	
			6/2/15	**Reading Rate**	78			2/90	
			6/2/15	Test 9: Sentence Reading Fluency	76			1/90	
			6/2/15	Test 15: Word Reading Fluency	81			4/90	
	Spell.	WJ IV ACH	6/2/15	Test 3: Spelling	89			59/90	
			6/2/15	Test 16: Spelling of Sounds		92		80/90	
	Phoneme-Grapheme Knowledge	WJ IV ACH	6/2/15	**Phoneme-Grapheme Knowledge**	87			69/90	
			6/2/15	Test 7: Word Attack	84			55/90	
			6/2/15	Test 16: Spelling of Sounds		92		80/90	
Secondary Reading and Writing Difficulties	Reading Comprehension	WJ IV ACH	6/2/15	**Reading Comprehension** ☐ Extended		95		83/90	
			6/2/15	Test 4: Passage Comprehension		95		80/90	
			6/2/15	Test 12: Reading Recall		97		86/90	
				Test 17: Reading Vocabulary (Extended)				__/90	
	Written Expression	WJ IV ACH		**Written Expression**				__/90	
			6/2/15	Test 6: Writing Samples		105		94/90	
				Test 11: Sentence Writing Fluency				__/90	
Cognitive Abilities: Possible Contributing Factors	Phonological Awareness	WJ IV COG	6/2/15	**Auditory Processing**		90		81/90	
			6/2/15	Test 5: Phonological Processing	83			69/90	
			6/2/15	Test 12: Nonword Repetition		99		89/90	
		WJ IV OL	6/2/15	**Phonetic Coding**			118	98/90	
			6/2/15	Test 3: Segmentation			111	98/90	
			6/2/15	Test 7: Sound Blending			119	98/90	
				Test 9: Sound Awareness				__/90	
	Orthographic Awareness	WJ IV COG	6/2/15	Test 4: Letter-Pattern Matching	75			9/90	
			6/2/15	Test 11: Number-Pattern Matching	80			8/90	
		WJ IV ACH	6/2/15	Test 1: Letter-Word Identification	80			14/90	
			6/2/15	Test 3: Spelling	89			59/90	
			6/2/15	Test 7: Word Attack	84			55/90	
			6/2/15	Test 16: Spelling of Sounds		92		80/90	
	Memory	WJ IV OL	6/2/15	**Auditory Memory Span**		95		82/90	
			6/2/15	Test 5: Sentence Repetition		95		81/90	
		WJ IV COG	6/2/15	Test 18: Memory for Words		95		83/90	
			6/2/15	**Short-Term Working Memory** ☒ Extended	88			71/90	
			6/2/15	Test 3: Verbal Attention	89			71/90	
			6/2/15	Test 10: Numbers Reversed	80			42/90	
			6/2/15	Test 16: Object-Number Sequencing (Extended)		100		90/90	
	Rapid Naming	WJ IV OL		**Speed of Lexical Access**				__/90	
			6/2/15	Test 4: Rapid Picture Naming		93		76/90	
				Test 8: Retrieval Fluency				__/90	
	Processing Speed	WJ IV COG	6/2/15	**Cognitive Processing Speed (*Gs*)**	76			14/90	
			6/2/15	Test 4: Letter-Pattern Matching	75			9/90	
			6/2/15	Test 17: Pair Cancellation	82			22/90	
		WJ IV COG	6/2/15	**Perceptual Speed**	75			8/90	
			6/2/15	Test 4: Letter-Pattern Matching	75			9/90	
			6/2/15	Test 11: Number-Pattern Matching	80			8/90	

WJ IV Dyslexia Profile of Scores *(cont.)*

Area Tested		Battery	Test Date	Cluster/Test	Low/Below Average SS <40–89 PR <1–24	Average SS 90–110 PR 25–75	High/Above Average SS >110 PR >75	RPI	Comments
Ability to Learn Independent of Reading	General Intelligence	WJ IV COG	6/2/15	**General Intellectual Ability (GIA)**		94		85/90	
			6/2/15	Test 1: Oral Vocabulary (*Gc*)			119	98/90	
			6/2/15	Test 2: Number Series (*Gf*)			111	97/90	
			6/2/15	Test 3: Verbal Attention (*Gwm*)	89			71/90	
			6/2/15	Test 4: Letter-Pattern Matching (*Gs*)	75			9/90	
			6/2/15	Test 5: Phonological Processing (*Ga*)	83			69/90	
			6/2/15	Test 6: Story Recall (*Glr*)	85			76/90	
			6/2/15	Test 7: Visualization (*Gv*)			114	96/90	
	Reasoning and Knowledge	WJ IV COG	6/2/15	***Gf-Gc* Composite**			117	97/90	
			6/2/15	Test 1: Oral Vocabulary (*Gc*)			119	98/90	
			6/2/15	Test 2: Number Series (*Gf*)			111	97/90	
			6/2/15	Test 8: General Information (*Gc*)			115	98/90	
			6/2/15	Test 9: Concept Formation (*Gf*)			108	96/90	
	Oral Language	WJ IV OL	6/2/15	**Oral Expression**		104		93/90	
			6/2/15	Test 1: Picture Vocabulary			117	98/90	
			6/2/15	Test 5: Sentence Repetition		95		81/90	
				Listening Comprehension				__/90	
				Test 2: Oral Comprehension				__/90	
				Test 6: Understanding Directions				__/90	
			6/2/15	**Vocabulary**			119	98/90	
			6/2/15	Test 1: Picture Vocabulary			117	98/90	
		WJ IV COG	6/2/15	Test 1: Oral Vocabulary			119	98/90	
	Math	WJ IV ACH	6/2/15	**Math Calculation Skills**			111	98/90	
			6/2/15	Test 5: Calculation		107		96/90	
			6/2/15	Test 10: Math Facts Fluency			112	99/90	
			6/2/15	**Math Problem Solving**			113	97/90	
			6/2/15	Test 2: Applied Problems			112	97/90	
			6/2/15	Test 13: Number Matrices			111	97/90	
	Academic Knowledge	WJ IV ACH	6/2/15	**Academic Knowledge**			111	96/90	
			6/2/15	Test 18: Science		109		96/90	
			6/2/15	Test 19: Social Studies		110		97/90	
			6/2/15	Test 20: Humanities		110		96/90	
		WJ IV COG	6/2/15	Test 8: General Information			115	98/90	

[1] If the student exhibits reading and spelling difficulties and currently has average phonological/phonemic processing, review the student's history to determine if there is evidence of previous interventions with phonological/phonemic awareness. Previous effective instruction in phonological/phonemic awareness may remediate phonological awareness skills in isolation. Thus, average phonological awareness scores alone do not rule out the existence of dyslexia. Ongoing phonological processing deficits can also be exhibited in word reading and/or spelling (Texas Education Agency, 2014, p. 22).

[2] A weakness in orthographic awareness can be a significant contributing factor to dyslexia. Although orthographic awareness is a linguistic ability, it is often assessed through tests of irregular- or exception-word reading, and spelling. In the WJ IV, a student's recognition and retrieval of orthographic patterns may be ascertained by analysis of the patterns of responses, as well as the scores, on the following tests: WJ IV COG Test 4: Letter-Pattern Matching and WJ IV ACH Test 1: Letter-Word Identification, Test 3: Spelling, Test 7: Word Attack, and Test 16: Spelling of Sounds. Students with a weakness in orthographic awareness are more successful in reading phonetically regular words than irregular words and tend to spell irregular words the way they sound, rather than the way they look.

[3] Consider that as a student grows older, limited reading affects the development of vocabulary, academic knowledge, and general information.

Appendix B

Woodcock Johnson IV

Score Report

Name: Jackson, Brayden
Date of Birth: 05/16/2006
Age: 9-1
Sex: Male
Date of Testing: 06/02/2015

School:
Teacher:
Grade:
ID:
Examiners:

TESTS ADMINISTERED

Woodcock-Johnson IV Tests of Cognitive Abilities (Norms based on age 9-1)
Woodcock-Johnson IV Tests of Oral Language (Norms based on age 9-1)
Woodcock-Johnson IV Tests of Achievement Form A and Extended (Norms based on age 9-1)

TABLE OF SCORES

Woodcock-Johnson IV Tests of Cognitive Abilities (Norms based on age 9-1)

CLUSTER/Tests	GE	RPI	SS (68% Band)	PR (68% Band)	Proficiency
GEN INTELLECTUAL ABIL	3.1	85/90	94 (90-98)	34 (24-46)	Average
Oral Vocabulary	6.8	98/90	119 (113-126)	90 (81-96)	Advanced
Number Series	4.9	97/90	111 (105-116)	76 (64-86)	Average to Advanced
Verbal Attention	2.1	71/90	89 (83-94)	22 (13-36)	Limited to Average
Letter-Pattern Matching	1.2	9/90	75 (64-86)	5 (1-17)	Very Limited
Phonological Processing	1.5	69/90	83 (78-88)	13 (7-22)	Limited to Average
Story Recall	1.4	76/90	85 (78-91)	15 (7-27)	Limited to Average
Visualization	8.2	96/90	114 (109-120)	83 (72-91)	Average to Advanced
Gf-Gc COMPOSITE	5.8	97/90	117 (113-120)	87 (81-91)	Average to Advanced
Oral Vocabulary	6.8	98/90	119 (113-126)	90 (81-96)	Advanced
Number Series	4.9	97/90	111 (105-116)	76 (64-86)	Average to Advanced
General Information	6.9	98/90	115 (109-120)	83 (73-91)	Advanced
Concept Formation	5.4	96/90	108 (104-112)	71 (61-79)	Average to Advanced
COMP-KNOWLEDGE (*Gc*)	6.9	98/90	117 (113-121)	87 (80-92)	Advanced
Oral Vocabulary	6.8	98/90	119 (113-126)	90 (81-96)	Advanced
General Information	6.9	98/90	115 (109-120)	83 (73-91)	Advanced
COMP-KNOWLEDGE 3	7.1	98/90	118 (114-122)	89 (83-93)	Advanced
Oral Vocabulary	6.8	98/90	119 (113-126)	90 (81-96)	Advanced
General Information	6.9	98/90	115 (109-120)	83 (73-91)	Advanced
Picture Vocabulary	7.5	98/90	117 (110-123)	87 (75-94)	Advanced
FLUID REASONING (*Gf*)	5.1	96/90	111 (107-115)	76 (68-83)	Average to Advanced
Number Series	4.9	97/90	111 (105-116)	76 (64-86)	Average to Advanced
Concept Formation	5.4	96/90	108 (104-112)	71 (61-79)	Average to Advanced
FLUID REASONING 3	5.1	96/90	111 (107-114)	76 (68-83)	Average to Advanced
Number Series	4.9	97/90	111 (105-116)	76 (64-86)	Average to Advanced
Concept Formation	5.4	96/90	108 (104-112)	71 (61-79)	Average to Advanced
Analysis-Synthesis	5.2	96/90	107 (102-112)	68 (55-79)	Average to Advanced
S-TERM WORK MEM (*Gwm*)	1.6	57/90	81 (76-87)	11 (6-19)	Limited
Verbal Attention	2.1	71/90	89 (83-94)	22 (13-36)	Limited to Average
Numbers Reversed	1.1	42/90	80 (74-87)	9 (4-19)	Limited
S-TERM WORK MEM 3	2.1	71/90	88 (84-92)	21 (14-29)	Limited to Average

Score Report

CLUSTER/Tests	GE	RPI	SS (68% Band)	PR (68% Band)	Proficiency
Verbal Attention	2.1	71/90	89 (83-94)	22 (13-36)	Limited to Average
Numbers Reversed	1.1	42/90	80 (74-87)	9 (4-19)	Limited
Object-Number Sequencing	3.6	90/90	100 (95-105)	50 (36-64)	Average
COG PROCESS SPEED (*Gs*)	1.3	14/90	76 (69-83)	6 (2-13)	Very Limited
Letter-Pattern Matching	1.2	9/90	75 (64-86)	5 (1-17)	Very Limited
Pair Cancellation	1.4	22/90	82 (75-88)	11 (5-22)	Very Limited
AUDITORY PROCESS (*Ga*)	2.2	81/90	90 (86-95)	26 (18-36)	Limited to Average
Phonological Processing	1.5	69/90	83 (78-88)	13 (7-22)	Limited to Average
Nonword Repetition	3.4	89/90	99 (95-104)	48 (36-59)	Average
L-TERM RETRIEVAL (*Glr*)	2.6	86/90	94 (89-98)	34 (24-44)	Average
Story Recall	1.4	76/90	85 (78-91)	15 (7-27)	Limited to Average
Visual-Auditory Learning	5.3	92/90	104 (99-108)	59 (49-69)	Average
VISUAL PROCESSING (*Gv*)	11.8	97/90	119 (113-124)	89 (81-95)	Average to Advanced
Visualization	8.2	96/90	114 (109-120)	83 (72-91)	Average to Advanced
Picture Recognition	>17.9	97/90	118 (110-125)	88 (75-95)	Average to Advanced
QUANTITATIVE REASONING	5.0	96/90	110 (106-114)	75 (65-83)	Average to Advanced
Number Series	4.9	97/90	111 (105-116)	76 (64-86)	Average to Advanced
Analysis-Synthesis	5.2	96/90	107 (102-112)	68 (55-79)	Average to Advanced
AUDITORY MEMORY SPAN	2.7	82/90	95 (90-99)	36 (26-46)	Average
Memory for Words	2.6	83/90	95 (90-101)	38 (25-53)	Average
Sentence Repetition	2.8	81/90	95 (90-100)	37 (26-49)	Limited to Average
NUMBER FACILITY	1.4	20/90	75 (68-83)	5 (2-13)	Very Limited
Numbers Reversed	1.1	42/90	80 (74-87)	9 (4-19)	Limited
Number-Pattern Matching	1.5	8/90	80 (71-89)	9 (3-22)	Very Limited
PERCEPTUAL SPEED	1.4	8/90	75 (68-83)	5 (2-13)	Very Limited
Letter-Pattern Matching	1.2	9/90	75 (64-86)	5 (1-17)	Very Limited
Number-Pattern Matching	1.5	8/90	80 (71-89)	9 (3-22)	Very Limited
VOCABULARY	7.2	98/90	119 (114-124)	90 (83-95)	Advanced
Oral Vocabulary	6.8	98/90	119 (113-126)	90 (81-96)	Advanced
Picture Vocabulary	7.5	98/90	117 (110-123)	87 (75-94)	Advanced
COGNITIVE EFFICIENCY	1.1	21/90	73 (65-82)	4 (1-11)	Very Limited
Letter-Pattern Matching	1.2	9/90	75 (64-86)	5 (1-17)	Very Limited
Numbers Reversed	1.1	42/90	80 (74-87)	9 (4-19)	Limited
COG EFFICIENCY (Ext)	1.4	26/90	74 (68-80)	4 (2-9)	Limited
Verbal Attention	2.1	71/90	89 (83-94)	22 (13-36)	Limited to Average
Letter-Pattern Matching	1.2	9/90	75 (64-86)	5 (1-17)	Very Limited
Numbers Reversed	1.1	42/90	80 (74-87)	9 (4-19)	Limited
Number-Pattern Matching	1.5	8/90	80 (71-89)	9 (3-22)	Very Limited

Woodcock-Johnson IV Tests of Oral Language (Norms based on age 9-1)

CLUSTER/Tests	GE	RPI	SS (68% Band)	PR (68% Band)	Proficiency
ORAL LANGUAGE	5.6	96/90	111 (106-117)	78 (66-87)	Average to Advanced
Picture Vocabulary	7.5	98/90	117 (110-123)	87 (75-94)	Advanced
Oral Comprehension	4.1	92/90	103 (96-109)	57 (40-73)	Average

Score Report

CLUSTER/Tests	GE	RPI	SS (68% Band)	PR (68% Band)	Proficiency
ORAL EXPRESSION	4.3	93/90	104 (100-109)	61 (49-72)	Average
Picture Vocabulary	7.5	98/90	117 (110-123)	87 (75-94)	Advanced
Sentence Repetition	2.8	81/90	95 (90-100)	37 (26-49)	Limited to Average
PHONETIC CODING	13.0	98/90	118 (113-123)	89 (81-94)	Advanced
Segmentation	11.3	98/90	111 (106-115)	76 (65-85)	Advanced
Sound Blending	13.0	98/90	119 (113-126)	90 (81-96)	Advanced
VOCABULARY	7.2	98/90	119 (114-124)	90 (83-95)	Advanced
Picture Vocabulary	7.5	98/90	117 (110-123)	87 (75-94)	Advanced
Oral Vocabulary	6.8	98/90	119 (113-126)	90 (81-96)	Advanced
AUDITORY MEMORY SPAN	2.7	82/90	95 (90-99)	36 (26-46)	Average
Sentence Repetition	2.8	81/90	95 (90-100)	37 (26-49)	Limited to Average
Memory for Words	2.6	83/90	95 (90-101)	38 (25-53)	Average
Rapid Picture Naming	2.4	76/90	93 (88-98)	32 (20-45)	Limited to Average

Woodcock-Johnson IV Tests of Achievement Form A and Extended (Norms based on age 9-1)

CLUSTER/Tests	GE	RPI	SS (68% Band)	PR (68% Band)	Proficiency
READING	2.2	45/90	85 (83-87)	16 (12-20)	Limited
Letter-Word Identification	1.8	14/90	80 (77-83)	9 (7-13)	Very Limited
Passage Comprehension	2.8	80/90	95 (91-98)	36 (27-46)	Limited to Average
BROAD READING	1.8	14/90	82 (79-84)	11 (8-14)	Very Limited
Letter-Word Identification	1.8	14/90	80 (77-83)	9 (7-13)	Very Limited
Passage Comprehension	2.8	80/90	95 (91-98)	36 (27-46)	Limited to Average
Sentence Reading Fluency	1.4	1/90	76 (71-80)	5 (3-9)	Extremely Limited
BASIC READING SKILLS	1.8	31/90	82 (79-84)	11 (8-14)	Limited
Letter-Word Identification	1.8	14/90	80 (77-83)	9 (7-13)	Very Limited
Word Attack	1.8	55/90	84 (79-89)	14 (9-22)	Limited
READING COMPREHENSION	2.9	83/90	95 (92-98)	37 (30-44)	Average
Passage Comprehension	2.8	80/90	95 (91-98)	36 (27-46)	Limited to Average
Reading Recall	3.0	86/90	97 (93-100)	41 (32-50)	Average
READING FLUENCY	1.6	8/90	77 (74-81)	6 (4-10)	Very Limited
Oral Reading	1.8	57/90	87 (83-90)	19 (13-26)	Limited
Sentence Reading Fluency	1.4	1/90	76 (71-80)	5 (3-9)	Extremely Limited
READING RATE	1.5	2/90	78 (75-81)	7 (5-10)	Extremely Limited
Sentence Reading Fluency	1.4	1/90	76 (71-80)	5 (3-9)	Extremely Limited
Word Reading Fluency	1.7	4/90	81 (76-86)	10 (6-17)	Very Limited
MATHEMATICS	4.7	97/90	110 (107-114)	75 (67-82)	Average to Advanced
Applied Problems	5.1	97/90	112 (107-117)	79 (68-87)	Average to Advanced
Calculation	4.4	96/90	107 (102-111)	67 (56-77)	Average to Advanced
BROAD MATHEMATICS	4.9	98/90	112 (109-115)	78 (72-84)	Advanced
Applied Problems	5.1	97/90	112 (107-117)	79 (68-87)	Average to Advanced
Calculation	4.4	96/90	107 (102-111)	67 (56-77)	Average to Advanced
Math Facts Fluency	5.3	99/90	112 (108-116)	79 (70-86)	Advanced
MATH CALCULATION SKILLS	4.9	98/90	111 (107-114)	76 (69-82)	Advanced

Score Report

CLUSTER/Tests	GE	RPI	SS (68% Band)	PR (68% Band)	Proficiency
Calculation	4.4	96/90	107 (102-111)	67 (56-77)	Average to Advanced
Math Facts Fluency	5.3	99/90	112 (108-116)	79 (70-86)	Advanced
MATH PROBLEM SOLVING	5.2	97/90	113 (109-117)	80 (72-87)	Average to Advanced
Applied Problems	5.1	97/90	112 (107-117)	79 (68-87)	Average to Advanced
Number Matrices	5.2	97/90	111 (105-116)	76 (64-85)	Average to Advanced
WRITTEN LANGUAGE	3.1	83/90	96 (93-98)	39 (33-45)	Average
Spelling	2.5	59/90	89 (85-92)	22 (16-30)	Limited
Writing Samples	4.5	94/90	105 (100-109)	62 (50-73)	Average
BASIC WRITING SKILLS	2.4	61/90	89 (86-92)	23 (18-29)	Limited
Spelling	2.5	59/90	89 (85-92)	22 (16-30)	Limited
Editing	2.3	62/90	88 (83-92)	21 (14-31)	Limited
ACADEMIC SKILLS	2.7	64/90	89 (87-92)	24 (20-29)	Limited
Letter-Word Identification	1.8	14/90	80 (77-83)	9 (7-13)	Very Limited
Spelling	2.5	59/90	89 (85-92)	22 (16-30)	Limited
Calculation	4.4	96/90	107 (102-111)	67 (56-77)	Average to Advanced
ACADEMIC APPLICATIONS	4.1	93/90	104 (101-108)	61 (52-70)	Average
Applied Problems	5.1	97/90	112 (107-117)	79 (68-87)	Average to Advanced
Passage Comprehension	2.8	80/90	95 (91-98)	36 (27-46)	Limited to Average
Writing Samples	4.5	94/90	105 (100-109)	62 (50-73)	Average
ACADEMIC KNOWLEDGE	5.3	96/90	111 (107-115)	77 (69-84)	Average to Advanced
Science	5.2	96/90	109 (103-115)	72 (58-84)	Average to Advanced
Social Studies	5.3	97/90	110 (105-116)	75 (62-85)	Average to Advanced
Humanities	5.4	96/90	110 (104-116)	75 (61-86)	Average to Advanced
PHONEME-GRAPHEME KNOW	2.1	69/90	87 (84-91)	20 (14-27)	Limited to Average
Word Attack	1.8	55/90	84 (79-89)	14 (9-22)	Limited
Spelling of Sounds	2.5	80/90	92 (87-97)	30 (19-42)	Limited to Average
BRIEF ACHIEVEMENT	2.7	67/90	91 (89-93)	27 (23-32)	Limited to Average
Letter-Word Identification	1.8	14/90	80 (77-83)	9 (7-13)	Very Limited
Applied Problems	5.1	97/90	112 (107-117)	79 (68-87)	Average to Advanced
Spelling	2.5	59/90	89 (85-92)	22 (16-30)	Limited

	STANDARD SCORES			DISCREPANCY		Interpretation at
VARIATIONS	Actual	Predicted	Difference	PR	SD	+ or -1.50 SD (SEE)
Intra-Cognitive [Extended] Variations						
COMP-KNOWLEDGE (*Gc*)	117	93	24	97	+1.93	Strength
COMP-KNOWLEDGE 3	118	93	25	98	+2.07	Strength
FLUID REASONING (*Gf*)	111	94	17	95	+1.65	Strength
FLUID REASONING 3	111	94	17	96	+1.76	Strength
S-TERM WORK MEM (*Gwm*)	81	98	-17	8	-1.44	--
S-TERM WORK MEM 3	88	98	-10	18	-0.92	--
COG PROCESS SPEED (*Gs*)	76	100	-24	4	-1.80	Weakness
AUDITORY PROCESS (*Ga*)	90	99	-9	24	-0.70	--
L-TERM RETRIEVAL (*Glr*)	94	99	-5	34	-0.42	--

Score Report

VARIATIONS	STANDARD SCORES Actual	Predicted	Difference	DISCREPANCY PR	SD	Interpretation at + or -1.50 SD (SEE)
Intra-Cognitive [Extended] Variations						
VISUAL PROCESSING (*Gv*)	119	95	24	96	+1.76	Strength
QUANTITATIVE REASONING	110	94	16	95	+1.62	Strength
AUDITORY MEMORY SPAN	95	98	-3	38	-0.30	--
PERCEPTUAL SPEED	75	100	-25	2	-1.98	Weakness
VOCABULARY	119	93	26	99	+2.29	Strength
ORAL LANGUAGE	111	93	18	93	+1.49	--
PHONETIC CODING	118	99	19	93	+1.51	Strength
Oral Vocabulary	119	93	26	99	+2.36	Strength
Number Series	111	95	16	91	+1.35	--
Verbal Attention	89	98	-9	22	-0.76	--
Letter-Pattern Matching	75	100	-25	3	-1.92	Weakness
Phonological Processing	83	99	-16	8	-1.37	--
Story Recall	85	99	-14	13	-1.14	--
Visualization	114	95	19	93	+1.45	--
General Information	115	94	21	93	+1.47	--
Concept Formation	108	95	13	86	+1.07	--
Numbers Reversed	80	98	-18	7	-1.44	--
Number-Pattern Matching	80	100	-20	7	-1.49	--
Nonword Repetition	99	99	0	50	0.00	--
Visual-Auditory Learning	104	99	5	63	+0.34	--
Picture Recognition	118	97	21	93	+1.50	Strength
Analysis-Synthesis	107	95	12	84	+1.01	--
Object-Number Sequencing	100	98	2	56	+0.15	--
Pair Cancellation	82	100	-18	9	-1.34	--
Memory for Words	95	98	-3	41	-0.24	--
Picture Vocabulary	117	94	23	96	+1.71	Strength
Oral Comprehension	103	94	9	77	+0.74	--
Segmentation	111	99	12	82	+0.92	--
Rapid Picture Naming	93	100	-7	30	-0.53	--
Sentence Repetition	95	98	-3	40	-0.26	--
Sound Blending	119	99	20	93	+1.48	--
Number Matrices	111	95	16	89	+1.23	--

VARIATIONS	STANDARD SCORES Actual	Predicted	Difference	DISCREPANCY PR	SD	Interpretation at + or -1.50 SD (SEE)
Intra-Oral Language [Extended] Variations						
ORAL EXPRESSION	104	102	2	58	+0.20	--
PHONETIC CODING	118	103	15	87	+1.12	--
VOCABULARY	119	102	17	94	+1.53	Strength
AUDITORY PROCESS (*Ga*)	90	103	-13	18	-0.90	--

Score Report

VARIATIONS	STANDARD SCORES Actual	Predicted	Difference	DISCREPANCY PR	SD	Interpretation at + or -1.50 SD (SEE)
Intra-Oral Language [Extended] Variations						
Picture Vocabulary	117	102	15	89	+1.25	--
Oral Comprehension	103	106	-3	38	-0.31	--
Segmentation	111	101	10	75	+0.67	--
Rapid Picture Naming	93	105	-12	18	-0.91	--
Sentence Repetition	95	101	-6	31	-0.51	--
Sound Blending	119	102	17	89	+1.21	--
Oral Vocabulary	119	102	17	93	+1.49	--
Phonological Processing	83	102	-19	7	-1.47	--
Nonword Repetition	99	102	-3	41	-0.22	--

VARIATIONS	STANDARD SCORES Actual	Predicted	Difference	DISCREPANCY PR	SD	Interpretation at + or -1.50 SD (SEE)
Intra-Achievement [Extended] Variations						
BASIC READING SKILLS	82	101	-19	1	-2.44	Weakness
READING COMPREHENSION	95	98	-3	35	-0.37	--
READING FLUENCY	77	101	-24	0.4	-2.67	Weakness
READING RATE	78	99	-21	2	-2.01	Weakness
MATH CALCULATION SKILLS	111	96	15	92	+1.42	--
MATH PROBLEM SOLVING	113	96	17	94	+1.55	Strength
BASIC WRITING SKILLS	89	100	-11	10	-1.29	--
Letter-Word Identification	80	101	-21	0.4	-2.62	Weakness
Applied Problems	112	95	17	94	+1.53	Strength
Spelling	89	100	-11	12	-1.19	--
Passage Comprehension	95	98	-3	34	-0.41	--
Calculation	107	96	11	85	+1.02	--
Writing Samples	105	97	8	74	+0.66	--
Word Attack	84	101	-17	6	-1.54	Weakness
Oral Reading	87	101	-14	10	-1.27	--
Sentence Reading Fluency	76	99	-23	1	-2.23	Weakness
Math Facts Fluency	112	97	15	90	+1.29	--
Reading Recall	97	99	-2	42	-0.21	--
Number Matrices	111	97	14	86	+1.06	--
Editing	88	100	-12	11	-1.23	--
Word Reading Fluency	81	99	-18	5	-1.62	Weakness
Spelling of Sounds	92	100	-8	24	-0.70	--

COMPARISONS	STANDARD SCORES Actual	Predicted	Difference	DISCREPANCY PR	SD	Interpretation at + or -1.50 SD (SEE)
Gf-Gc Composite/Other Ability Comparisons						
S-TERM WORK MEM (*Gwm*)	81	109	-28	1	-2.31	Weakness

Score Report

COMPARISONS	STANDARD SCORES Actual	Predicted	Difference	DISCREPANCY PR	SD	Interpretation at + or -1.50 SD (SEE)
Gf-Gc Composite/Other Ability Comparisons						
S-TERM WORK MEM 3	88	110	-22	3	-1.88	Weakness
COG PROCESS SPEED (*Gs*)	76	106	-30	1	-2.23	Weakness
PERCEPTUAL SPEED	75	107	-32	1	-2.38	Weakness
AUDITORY PROCESS (*Ga*)	90	109	-19	6	-1.54	Weakness
PHONETIC CODING	118	108	10	77	+0.74	--
L-TERM RETRIEVAL (*Glr*)	94	109	-15	11	-1.20	--
VISUAL PROCESSING (*Gv*)	119	108	11	79	+0.81	--
AUDITORY MEMORY SPAN	95	107	-12	16	-0.98	--
NUMBER FACILITY	75	108	-33	0.5	-2.58	Weakness
COGNITIVE EFFICIENCY	73	109	-36	0.3	-2.76	Weakness
COG EFFICIENCY (Ext)	74	109	-35	0.2	-2.82	Weakness
BRIEF ACHIEVEMENT	91	112	-21	1	-2.24	Weakness
READING	85	112	-27	0.5	-2.59	Weakness
BROAD READING	82	111	-29	0.2	-2.81	Weakness
BASIC READING SKILLS	82	110	-28	0.5	-2.58	Weakness
READING COMPREHENSION	95	111	-16	6	-1.52	Weakness
READING FLUENCY	77	109	-32	0.3	-2.73	Weakness
READING RATE	78	108	-30	1	-2.48	Weakness
MATHEMATICS	110	112	-2	42	-0.21	--
BROAD MATHEMATICS	112	112	0	49	-0.02	--
MATH CALCULATION SKILLS	111	110	1	51	+0.01	--
MATH PROBLEM SOLVING	113	112	1	51	+0.03	--
WRITTEN LANGUAGE	96	110	-14	10	-1.28	--
BASIC WRITING SKILLS	89	110	-21	3	-1.96	Weakness
ACADEMIC SKILLS	89	112	-23	2	-2.12	Weakness
ACADEMIC APPLICATIONS	104	113	-9	19	-0.88	--
PHONEME-GRAPHEME KNOW	87	109	-22	3	-1.89	Weakness

COMPARISONS	STANDARD SCORES Actual	Predicted	Difference	DISCREPANCY PR	SD	Significant at + or -1.50 SD (SEE)
GIA/Achievement Discrepancy Procedure						
BRIEF ACHIEVEMENT	91	95	-4	34	-0.42	No
READING	85	95	-10	17	-0.96	No
BROAD READING	82	96	-14	8	-1.42	No
BASIC READING SKILLS	82	95	-13	9	-1.34	No
READING COMPREHENSION	95	95	0	49	-0.03	No
READING FLUENCY	77	96	-19	5	-1.67	Yes (-)
READING RATE	78	96	-18	5	-1.65	Yes (-)

Score Report

COMPARISONS	Actual	STANDARD SCORES Predicted	Difference	DISCREPANCY PR	SD	Significant at + or -1.50 SD (SEE)
GIA/Achievement Discrepancy Procedure						
MATHEMATICS	110	95	15	95	+1.61	Yes (+)
BROAD MATHEMATICS	112	95	17	96	+1.80	Yes (+)
MATH CALCULATION SKILLS	111	96	15	93	+1.47	No
MATH PROBLEM SOLVING	113	95	18	97	+1.83	Yes (+)
WRITTEN LANGUAGE	96	96	0	51	+0.01	No
BASIC WRITING SKILLS	89	95	-6	26	-0.63	No
ACADEMIC SKILLS	89	95	-6	27	-0.62	No
ACADEMIC APPLICATIONS	104	95	9	85	+1.02	No
ACADEMIC KNOWLEDGE	111	96	15	91	+1.34	No
PHONEME-GRAPHEME KNOW	87	96	-9	22	-0.78	No
ORAL LANGUAGE	111	96	15	90	+1.28	No
ORAL EXPRESSION	104	96	8	74	+0.66	No

COMPARISONS	Actual	STANDARD SCORES Predicted	Difference	DISCREPANCY PR	SD	Significant at + or -1.50 SD (SEE)
Academic Knowledge/Achievement Comparisons						
BRIEF ACHIEVEMENT	91	106	-15	10	-1.29	No
READING	85	107	-22	5	-1.67	Yes (-)
BROAD READING	82	106	-24	3	-1.85	Yes (-)
BASIC READING SKILLS	82	105	-23	3	-1.91	Yes (-)
READING COMPREHENSION	95	106	-11	21	-0.82	No
READING FLUENCY	77	104	-27	3	-1.93	Yes (-)
READING RATE	78	104	-26	3	-1.83	Yes (-)
MATHEMATICS	110	106	4	62	+0.30	No
BROAD MATHEMATICS	112	106	6	68	+0.45	No
MATH CALCULATION SKILLS	111	106	5	64	+0.36	No
MATH PROBLEM SOLVING	113	106	7	70	+0.51	No
WRITTEN LANGUAGE	96	106	-10	21	-0.82	No
BASIC WRITING SKILLS	89	106	-17	8	-1.39	No
ACADEMIC SKILLS	89	106	-17	9	-1.31	No
ACADEMIC APPLICATIONS	104	108	-4	39	-0.29	No
PHONETIC CODING	118	104	14	84	+0.98	No

COMPARISONS	Actual	STANDARD SCORES SAPT	Predicted	Difference	DISCREPANCY PR	SD	Significant at + or -1.50 SD (SEE)
Scholastic Aptitude/Achievement Comparisons							
READING	85	91	93	-8	25	-0.68	No
BROAD READING	82	91	93	-11	12	-1.18	No

Score Report

COMPARISONS	Actual	STANDARD SCORES SAPT	Predicted	Difference	DISCREPANCY PR	SD	Significant at + or -1.50 SD (SEE)
Scholastic Aptitude/Achievement Comparisons							
BASIC READING SKILLS	82	85	88	-6	26	-0.64	No
READING COMPREHENSION	95	91	93	2	58	+0.19	No
READING FLUENCY	77	91	94	-17	6	-1.59	Yes (-)
READING RATE	78	91	94	-16	5	-1.61	Yes (-)
MATHEMATICS	110	101	101	9	84	+1.00	No
BROAD MATHEMATICS	112	101	101	11	88	+1.19	No
MATH CALCULATION SKILLS	111	101	101	10	83	+0.95	No
MATH PROBLEM SOLVING	113	103	102	11	83	+0.95	No
WRITTEN LANGUAGE	96	85	87	9	79	+0.81	No
BASIC WRITING SKILLS	89	85	88	1	55	+0.12	No

Appendix C

WJ IV DYSLEXIA SUMMARY REPORT

Name _____ Date of Birth _____ ID _____

School _____ Grade _____ Date _____

The [name of state] Education Code [§ statute number] defines dyslexia in the following way:

International Dyslexia Association Definition (2002)
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.

Dyslexia affects reading at the single word level, reading fluency, and spelling. In turn, these deficits cause difficulties with reading comprehension and written expression. Oral language, math abilities, and general knowledge that do not require reading are often unimpaired. According to research, the major cognitive correlates of dyslexia include weaknesses in one or more of the following abilities: phonetic coding, orthographic awareness, short-term working memory, rapid automatized naming (RAN), and/or perceptual speed. The reading and spelling difficulties are often unexpected in relation to the student's other cognitive, oral language, or academic abilities.

Primary Reading and Writing Difficulties

Check if lower than the ability to learn when reading is not required (e.g., cognitive abilities, listening comprehension, mathematics):

- ☐ Letter knowledge
  - ☐ Letter names
  - ☐ Letter sounds
- ☐ Basic reading skills
  - ☐ Sight word recognition (Letter-Word Identification)
  - ☐ Phonics (Word Attack)
- ☐ Reading rate and fluency (Oral Reading, Sentence Reading Fluency, Word Reading Fluency)
- ☐ Spelling in isolation (Spelling and Spelling of Sounds)
- ☐ Spelling in context (Writing Samples)
- ☐ Phoneme-Grapheme Knowledge (Word Attack and Spelling of Sounds)

Secondary Reading and Writing Difficulties

Check if lower than the ability to learn when reading is not required (e.g., cognitive abilities, listening comprehension, mathematics):

- ☐ Reading Comprehension
- ☐ Written Expression

Cognitive Abilities: Possible Contributing Factors

Check if lower than the ability to learn when reading is not required (e.g., other cognitive abilities, listening comprehension, mathematics):

- ☐ Phonological Awareness[1]
  - ☐ Auditory Processing
  - ☐ Phonetic Coding
- ☐ Orthographic Awareness[2]
- ☐ Memory
  - ☐ Auditory Memory Span
  - ☐ Short-Term Working Memory
- ☐ Rapid Naming (Speed of Lexical Access)
- ☐ Processing Speed
  - ☐ Cognitive Processing Speed
  - ☐ Perceptual Speed

Ability to Learn When Reading Is Not Required

Check if higher than reading and spelling skills:

General Intelligence
- ☐ GIA (general intelligence)
- ☐ *Gf-Gc* Composite (reasoning and knowledge)

Oral Language
- ☐ Oral Expression
- ☐ Listening Comprehension
- ☐ Vocabulary[3]

Math
- ☐ Calculation
- ☐ Problem Solving

Knowledge
- ☐ Academic Knowledge[3]
- ☐ General Information[3]

Committee Consideration

- ☐ Data demonstrate characteristics of dyslexia.
- ☐ Data do not demonstrate characteristics of dyslexia.
- ☐ Data demonstrate characteristics of dyslexia; however, these characteristics would not be consistent with [State] guidelines for the identification of dyslexia.

_____ _____
Evaluator **Date**

_____ _____
Evaluator **Date**

WJ IV Dyslexia Profile of Scores

Area Tested		Battery	Test Date	Cluster/Test	Low/Below Average SS <40–89 PR <1–24	Average SS 90–110 PR 25–75	High/Above Average SS >110 PR >75	RPI	Comments
Primary Reading and Writing Difficulties	Letter-Sound	Informal		Letter Identification: Case: Lower ___/26 Upper ___/26 Letter sounds: C ___/21 V ___/5 (short)					
	Basic Read. Skills	WJ IV ACH		Test 1: Letter-Word Identification				___/90	
				Test 7: Word Attack				___/90	
	Reading Fluency (rate & accuracy)	WJ IV ACH		**Reading Fluency**				___/90	
				Test 8: Oral Reading				___/90	
				Test 9: Sentence Reading Fluency				___/90	
				Reading Rate				___/90	
				Test 9: Sentence Reading Fluency				___/90	
				Test 15: Word Reading Fluency				___/90	
	Spell.	WJ IV ACH		Test 3: Spelling				___/90	
				Test 16: Spelling of Sounds				___/90	
	Phoneme-Grapheme Knowledge	WJ IV ACH		**Phoneme-Grapheme Knowledge**				___/90	
				Test 7: Word Attack				___/90	
				Test 16: Spelling of Sounds				___/90	
Secondary Reading and Writing Difficulties	Reading Comprehension	WJ IV ACH		**Reading Comprehension** ☐ Extended				___/90	
				Test 4: Passage Comprehension				___/90	
				Test 12: Reading Recall				___/90	
				Test 17: Reading Vocabulary (Extended)				___/90	
	Written Expression	WJ IV ACH		**Written Expression**				___/90	
				Test 6: Writing Samples				___/90	
				Test 11: Sentence Writing Fluency				___/90	
Cognitive Abilities: Possible Contributing Factors	Phonological Awareness	WJ IV COG		**Auditory Processing**				___/90	
				Test 5: Phonological Processing				___/90	
				Test 12: Nonword Repetition				___/90	
		WJ IV OL		**Phonetic Coding**				___/90	
				Test 3: Segmentation				___/90	
				Test 7: Sound Blending				___/90	
				Test 9: Sound Awareness				___/90	
	Orthographic Awareness	WJ IV COG		Test 4: Letter-Pattern Matching				___/90	
				Test 11: Number-Pattern Matching				___/90	
		WJ IV ACH		Test 1: Letter-Word Identification				___/90	
				Test 3: Spelling				___/90	
				Test 7: Word Attack				___/90	
				Test 16: Spelling of Sounds				___/90	
	Memory	WJ IV OL		**Auditory Memory Span**				___/90	
				Test 5: Sentence Repetition				___/90	
		WJ IV COG		Test 18: Memory for Words				___/90	
				Short-Term Working Memory ☐ Extended				___/90	
				Test 3: Verbal Attention				___/90	
				Test 10: Numbers Reversed				___/90	
				Test 16: Object-Number Sequencing (Extended)				___/90	
	Rapid Naming	WJ IV OL		**Speed of Lexical Access**				___/90	
				Test 4: Rapid Picture Naming				___/90	
				Test 8: Retrieval Fluency				___/90	
	Processing Speed	WJ IV COG		**Cognitive Processing Speed (*Gs*)**				___/90	
				Test 4: Letter-Pattern Matching				___/90	
				Test 17: Pair Cancellation				___/90	
		WJ IV COG		**Perceptual Speed**				___/90	
				Test 4: Letter-Pattern Matching				___/90	
				Test 11: Number-Pattern Matching				___/90	

WJ IV Dyslexia Profile of Scores *(cont.)*

Area Tested		Battery	Test Date	Cluster/Test	Low/Below Average SS <40–89 PR <1–24	Average SS 90–110 PR 25–75	High/Above Average SS >110 PR >75	RPI	Comments
Ability to Learn Independent of Reading	General Intelligence	WJ IV COG		**General Intellectual Ability (GIA)**				__/90	
				Test 1: Oral Vocabulary (*Gc*)				__/90	
				Test 2: Number Series (*Gf*)				__/90	
				Test 3: Verbal Attention (*Gwm*)				__/90	
				Test 4: Letter-Pattern Matching (*Gs*)				__/90	
				Test 5: Phonological Processing (*Ga*)				__/90	
				Test 6: Story Recall (*Glr*)				__/90	
				Test 7: Visualization (*Gv*)				__/90	
	Reasoning and Knowledge	WJ IV COG		***Gf-Gc* Composite**				__/90	
				Test 1: Oral Vocabulary (*Gc*)				__/90	
				Test 2: Number Series (*Gf*)				__/90	
				Test 8: General Information (*Gc*)				__/90	
				Test 9: Concept Formation (*Gf*)				__/90	
	Oral Language	WJ IV OL		**Oral Expression**				__/90	
				Test 1: Picture Vocabulary				__/90	
				Test 5: Sentence Repetition				__/90	
				Listening Comprehension				__/90	
				Test 2: Oral Comprehension				__/90	
				Test 6: Understanding Directions				__/90	
				Vocabulary				__/90	
				Test 1: Picture Vocabulary				__/90	
		WJ IV COG		Test 1: Oral Vocabulary				__/90	
	Math	WJ IV ACH		**Math Calculation Skills**				__/90	
				Test 5: Calculation				__/90	
				Test 10: Math Facts Fluency				__/90	
				Math Problem Solving				__/90	
				Test 2: Applied Problems				__/90	
				Test 13: Number Matrices				__/90	
	Academic Knowledge	WJ IV ACH		**Academic Knowledge**				__/90	
				Test 18: Science				__/90	
				Test 19: Social Studies				__/90	
				Test 20: Humanities				__/90	
		WJ IV COG		Test 8: General Information				__/90	

[1] If the student exhibits reading and spelling difficulties and currently has average phonological/phonemic processing, review the student's history to determine if there is evidence of previous interventions with phonological/phonemic awareness. Previous effective instruction in phonological/phonemic awareness may remediate phonological awareness skills in isolation. Thus, average phonological awareness scores alone do not rule out the existence of dyslexia. Ongoing phonological processing deficits can also be exhibited in word reading and/or spelling (Texas Education Agency, 2014, p. 22).

[2] A weakness in orthographic awareness can be a significant contributing factor to dyslexia. Although orthographic awareness is a linguistic ability, it is often assessed through tests of irregular- or exception-word reading, and spelling. In the WJ IV, a student's recognition and retrieval of orthographic patterns may be ascertained by analysis of the patterns of responses, as well as the scores, on the following tests: WJ IV COG Test 4: Letter-Pattern Matching and WJ IV ACH Test 1: Letter-Word Identification, Test 3: Spelling, Test 7: Word Attack, and Test 16: Spelling of Sounds. Students with a weakness in orthographic awareness are more successful in reading phonetically regular words than irregular words and tend to spell irregular words the way they sound, rather than the way they look.

[3] Consider that as a student grows older, limited reading affects the development of vocabulary, academic knowledge, and general information.

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