



Updates on the Woodcock-Johnson® IV

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The response from the field to the Fourth Edition of **Woodcock-Johnson**® has been extremely gratifying to the team of authors who spent many years designing and implementing a vision for a comprehensive battery of contemporary cognitive, oral language, and achievement tests that would find its place at the forefront of professional assessment practices.

Comments received from colleagues, feedback received at state conferences, and published reviews all coalesce into a resounding validation of the **WJ IV**™ for its intended purposes.

This edition of the **WJ IV** Newsletter will take a look at some of the exciting developments for **WJ IV** examiners. As anticipated, the **WJ IV COG Gf-Gc** Composite has been particularly well-received. Professionals have been quick to affirm the usefulness of this composite and its related comparison procedure in evaluations, and several colleagues have asked the authors to provide their perspective on the background, purposes, and potential uses of the Gf-Gc Composite. That is the first topic of this newsletter. The second topic unveils the release of the **WJ IV Interpretation and Instructional Interventions Program (WIIP™)** (Schrank & Wendling, 2015) with an emphasis on the link between **WJ IV** test scores and instructional

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interventions that the **WIIP** makes possible. The final topic previews the much-anticipated publication of the **WJ IV Tests of Early Cognitive and Academic Development (WJ IV ECAD™)** (Schrank, McGrew, & Mather, 2015b). This special purpose battery of early childhood tests is especially useful for determining the presence and severity of cognitive developmental delay.

Each topic consists of a brief overview and concludes with a hyperlink that can be used to obtain more detailed information. The authors hope you will find this format to be a useful channel for us to make a connection to you and your work. Finally, if you are in the formative stages of learning about the **WJ IV**, you may be interested in Assessment Service Bulletin Number 2: **WJ IV Technical Abstract** (LaForte, McGrew, & Schrank, 2014). To view or print this bulletin, [click here](#).

The WJ IV COG Gf-Gc Composite in SLD Evaluation

The Gf-Gc Composite, a new cluster score available in the **WJ IV Tests of Cognitive Abilities (WJ IV COG)** (Schrank, McGrew, & Mather, 2015b) has generated a significant amount of attention among assessment professionals. Because many examiners are eager to learn more about the Gf-Gc Composite and how it can be used, the authors of the **Woodcock-Johnson IV (WJ IV; Schrank, McGrew, & Mather; 2014a)** have created an Assessment Service Bulletin that describes the development of the Gf-Gc Composite score and suggests how it can be used in the evaluation of a specific learning disability (SLD).

A Measure of Intellectual Level or Intellectual Development

The **WJ IV COG** Gf-Gc Composite measures intellectual level (or intellectual development) from Fluid Reasoning (Gf) and Comprehension-Knowledge (Gc) tests alone. Tests that primarily measure cognitive processing are not included in the Gf-Gc Composite. For some individuals with learning disabilities, the score obtained from the Gf-Gc Composite may provide the best description of the intellectual level the person has attained—despite having a disability in cognitive processing.

Regardless of the model of SLD identification used by a state or school district, the evaluation team is required to consider the student's intellectual level. In IDEA (2004), the terms intellectual level and intellectual development are used interchangeably. Because the federal regulations do not require use of a Full Scale Intelligence Score (IQ) or other measure of general intellectual ability to assess intellectual level or intellectual development, the Gf-Gc Composite was developed to be a special-purpose alternative to the **WJ IV COG** General Intellectual Ability (GIA) score or a full scale intelligence score from another battery for use in SLD evaluations.

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Validity and Purpose of the Gf-Gc Composite

In Assessment Service Bulletin Number 3: *The WJ IV Gf-Gc Composite and Its Use in the Identification of Specific Learning Disabilities* (Schrank, McGrew, & Mather, 2015a), the authors discuss the **WJ IV Gf-Gc Composite**, contrast its composition to that of the **WJ IV General Intellectual Ability (GIA)** score, and synthesize important information that supports its use as a reliable and valid measure of intellectual development or intellectual level. For example, a review of the correlational evidence with part or factor scores obtained from the **WJ IV** standardization sample and other measures of global intelligence suggests that the Gf-Gc Composite score, when compared to the GIA cluster score, is less influenced by cognitive processing and cognitive efficiency abilities. By implication, when compared to the GIA cluster score and other full-scale intelligence scores, an obtained Gf-Gc Composite score may be less attenuated by the effects of a cognitive processing or cognitive efficiency disability for some individuals, particularly those with a SLD.

The **WJ IV** authors propose two reasons why the Gf-Gc Composite can be useful in SLD identification. First, the relative influence of any functional limitations in one or more of the basic cognitive processes, storage and processing functions, or cognitive efficiency mechanisms is minimized in the Gf-Gc Composite. This is particularly useful when an individual has benefited from the investment of effort and experience in spite of limitations in cognitive processing. Second, the Gf-Gc Composite can be directly compared to levels of academic achievement as well as to measures of basic cognitive processes, storage and retrieval

functions, mechanisms of cognitive efficiency, and/or critical cognitive-linguistic competencies. The Gf-Gc Composite/ Other Ability comparison procedure yields a profile of cognitive, linguistic, and achievement abilities that may reveal a pattern of strengths and weaknesses relative to the Gf-Gc Composite. Based on the judgment of the evaluation team, an observed pattern may be relevant to the identification of a SLD.

The **WJ IV** authors suggest that the Gf-Gc Composite and the related comparison procedure can be useful in any model of SLD identification that is allowed by IDEA (2004). To view or print this assessment service bulletin, [click here](#).

A Quantum Jump Forward: The WJ IV Interpretation and Instructional Interventions Program

The new **WJ IV Interpretation and Instructional Interventions Program (WIIP)** (Schrank & Wendling, 2015) represents a quantum jump forward by linking **WJ IV** assessment results to individualized instructional interventions that can be used for program planning. In addition to the expanded and updated interpretive functions, the all-new **WIIP** links assessment results to relevant suggestions, interventions, or accommodations that can be used to individualize a student's educational plan, teach strategies for learning, and improve prospects for successful outcomes.

The **WIIP** is an online program option that helps evaluation teams interpret the results of **WJ IV** performance and link test and

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cluster scores from any of the **Woodcock-Johnson IV** (Schrank, McGrew, & Mather, 2014a) batteries to associated instructional interventions. In addition, a number of qualitative checklists provide context to an individual's **WJ IV** scores that make an evaluation with the **WJ IV** more comprehensive.

The Link to Interventions

Without a doubt, however, the most exciting benefit of the **WIIP** is the link to evidence-based interventions. The idea for an expert system that would link **WJ IV** test and cluster scores to instructional interventions emerged in response to pressing practice needs that were articulated by many professional examiners. Those needs resonated with the authors' philosophy that assessment is most valuable when it results in suggestions for instruction and a fundamental belief that a quality evaluation should make a difference in the educational program of a student. To transform those practice needs and guiding philosophy into a practical tool for assessment practice, a database of evidence-based interventions was derived from the efforts of hundreds of researchers and scholars whose studies and recommendations—spanning at least four decades of research—were based on thousands of research participants.

Achievement Interventions

Linking **WJ IV** test results to instructional strategies, learning objectives, and intervention plans makes the **WJ IV Tests of Achievement (WJ IV ACH)** (Schrank, Mather, & McGrew, 2014a) more valuable than ever before. The **WIIP** now provides



an updated database with hundreds of interventions and accommodations linked to all **WJ IV** test batteries. The database includes over 100 evidence-based reading interventions and more than 50 evidence-based interventions aligned with each of the math and writing domains. In addition, specific skill development activities (or formative interventions) are now suggested when item-level data is entered for five tests from the standard achievement battery: Letter-Word Identification, Word Attack, Spelling, Applied Problems, and Calculation. The item-level data allows the **WIIP** to determine which items were “unexpectedly incorrect” or represent skills that are within reach for learning if the student is provided with the guidance of a teacher or more capable peer. Experienced clinicians have learned to home in on the pattern of correct and incorrect responses to glean insights into needs for specific skill development and program planning. The **WIIP** links a sixth achievement test, Oral Reading, to oral reading skill development suggestions when the examiner enters a tally of error types the student made when reading aloud.

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Oral Language Interventions

The **WJ IV Tests of Oral Language (WJ IV OL)** (Schrank, Mather, & McGrew, 2014b) and the **WIIP** provide a focus on the importance of oral language abilities for learning. Oral language development deficits, when identified, are particularly responsive to improvement through intervention. More than 50 evidence-based interventions for vocabulary development, phonological awareness, sound blending, word segmentation, and language expression are included in the **WIIP**. Additionally, the **WIIP** provides links to the latest evidence-based interventions that have been shown to increase both language competency and academic learning for English language learners (ELLs).

Cognitive Interventions

The **WIIP** also links **WJ IV COG** results to dozens of new evidence-based interventions, recommendations, or accommodations that can help teams address limitations identified from tests that measure specific cognitive abilities. The Cattell-Horn-Carroll (CHC) theory of cognitive abilities served as a bridge for linking limitations in cognitive abilities to interventions that can make a relevant contribution to a student's educational plan. To be relevant, cognitive assessment should result in evidence-based interventions or practical suggestions—recommendations that may not have surfaced if a comprehensive cognitive evaluation were not conducted.

WJ IV Comprehensive Report
Sample, Adam
October 10, 2014

Confirm that Adam can spell most short vowel, single syllable words. Then help Adam expand his knowledge of within-word patterns by teaching long vowel patterns such as the consonant-vowel-vowel-consonant pattern (CVVC) in *tail*, the CVCe pattern in *came*, and the CVV pattern in *pie*. Keep this instruction relevant and engaging by using word-building tiles, word sorts that compare and contrast spelling patterns, word hunts, and word lists that share common spelling patterns.

Daily writing practice at school and at home helps Adam learn to write for different purposes and for different audiences. Devoting more time to writing will help Adam make the connection between writing and real-world applications and is an important motivator in developing Adam's writing skills.

Explicit instruction in the mechanics of writing may improve Adam's fluency with writing tasks. Adam's writing fluency may improve if he can spell words phonetically, can spell high-frequency sight words correctly, and has legible writing. In addition, when Adam's focus is on the ideas being expressed rather than on the underlying basic skills, the quantity of his writing may increase.

Provide explicit instruction in proofreading so that Adam will begin to recognize the areas of Adam's writing that need attention, and so that he also will have a method for finding new errors. As Adam practices proofreading strategies, he will learn which ones work best for Adam and may become more efficient with the process.

Make a list of the types of errors that Adam is making when writing and then provide practice in detecting and correcting the specific mistakes (e.g., starting sentences with capital letters or ending sentences with periods).

Teach Adam how to analyze the syllables in words to increase Adam's ability to spell words. For example, instruct Adam to divide a word's pronunciation into syllables by raising a finger with each beat and then announcing the number of beats (e.g., *ta-ble* has two beats). If Adam responds incorrectly, model correct responses and allow him to practice them.

He should be able to understand classroom vocabulary that falls within the early third grade to early fifth grade range.

Use the following sequence to teach Adam segmentation. Begin with tasks that require Adam to break apart compound words (e.g., *raincoat*). Then progress to syllables. Have Adam clap the number of words or use markers to represent each word part. When Adam has learned to break words into syllables, teach Adam 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.

Accommodations that may help compensate for Adam'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.

Repetition is an important factor in building speed. Repeated and extensive practice may enable Adam to perform some tasks in a more automatic fashion to increase performance speed. Activities can be teacher directed or student directed. Related computer programs or games can provide opportunities to practice responding quickly. Select computer programs or games that provide Adam with immediate feedback and maintain a record of Adam's performance over time.

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Obtain an Example Report

The **WIIP** provides examiners with an online resource for linking **WJ IV** assessment results to related interventions that can assist teams in making informed choices about the educational program of a student. When using the **WJ IV** with the **WIIP**, professional examiners can connect limitations or deficits in measured abilities to instructionally relevant interventions, accommodations, and recommendations that can make a real difference in learning. For a sample **WIIP** report that includes selected checklist information, the optional expanded test and cluster interpretation, as well as sample interventions that are linked to performance on the **WJ IV**, [click here](#).

Announcing the Arrival of the **WJ IV Tests of Early Cognitive and Academic Development**

A new battery of tests has been added to the **Woodcock-Johnson IV** family of assessment instruments. The **Woodcock-Johnson IV Tests of Early Cognitive and Academic Development (WJ IV ECAD™)** (Schrank, McGrew, & Mather, 2015b) is a special-purpose battery of tests, contained within a single test easel, appropriate for use with children ages 2:6 through 7:11 or for children with a documented cognitive delay through age 9:11.

Cognitive Abilities Measured by **ECAD**

Cognitive Abilities

- Long-Term Retrieval (*Glr*)
- Auditory Processing (*Ga*)
- Comprehension-Knowledge (*Gc*)
- Fluid Reasoning (*Gf*)
- Visual Processing (*Gv*)
- Short-term Working Memory (*Gwm*)
- Cognitive Processing Speed (*Gs*)

Test Name

- Test 1. Memory for Name
- Test 2. Sound Blending
- Test 3. Picture Vocabulary
- Test 4. Verbal Analogies
- Test 5. Visual Closure
- Test 6. Sentence Repetition
- Test 7. Rapid Picture Naming

Achievement Areas and Abilities

- Reading (*Grw*)
- Mathematics (*Gq*)
- Written Language (*Grw*)

Test Name

- Test 8. Letter-Word Identification
- Test 9. Number Sense
- Test 10. Writing

The **Woodcock-Johnson IV** authors responded to a need—expressed by many examiners over the years—for a dedicated **WJ IV** battery of cognitive and early academic skills tests to measure both the emergence and development of the different broad CHC abilities in young children. Assessment professionals have suggested that CHC theory can be helpful for determining if cognitive abilities are developing as expected.

The **WJ IV ECAD** is a battery of ten tests—designed to be interesting and attractive to young children—that measure emerging cognitive abilities and academic skills. Some of the tests are unique to the **ECAD** while others are adapted and alternate forms of tests that are also included in other parts of the **WJ IV** assessment system. Tests that are unique to the **ECAD** include Memory for Names, Verbal Analogies, Visual Closure, and Number Sense.

Memory for Names is a test of learning ability

Using visually attractive pictures, the evaluator teaches the child the names of space creatures and, to be successful, the child must make a connection with the name and the picture of the space creature. Then the child is asked to point to the picture of the space creature from a group of pictures of different space creatures. The child does not need to recall the name, just point to the picture to show that the connection between the name and the picture have been learned. This test has been in use since 1989—and loved by examiners who conduct preschool evaluations. With the introduction of the **ECAD**, however, new and colorful art in a preschool artistic style enhances the attractiveness of the task to young children.

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Young children learn to reason by analogy, making the **Verbal Analogies** test a perfect choice for assessing the development of fluid reasoning ability. Knowledge and reasoning abilities grow together, so this test also measures comprehension-knowledge. At the preschool age, however, the task taps the critically important reasoning ability when the child applies his or her knowledge of the relationship between the words in the first part of the analogy to induce and say a fourth word that completes the analogy.



Visual Closure is a test of visual processing, specifically the ability to identify the name of an object when provided only with a limited portion of a pen and ink drawing of the object. The attention to detail that is required to identify objects from limited, but key, features is an important developmental task that precedes the ability to learn to read.

Number Sense is an intriguing new test that measures a critical developmental familiarity with numbers and how to think with numbers. Number Sense measures a broad sampling of number development skills, such as number recognition, counting, sequencing, and understanding of magnitude and quantity estimation with a variety of tasks that are both attractive and engaging to young children.

The other six tests in the **ECAD** are alternate forms of **WJ IV COG**, **WJ IV OL**, or **WJ IV ACH** tests, but the **ECAD** forms of these tests have greater item density to capture changes in early growth and development. The tests are alternate forms because they include different items so that children who are evaluated with the **WJ IV COG**, **OL**, or **ACH** in a subsequent year are not over-exposed to the same items. This is particularly important for skills and abilities that typically increase rapidly during this period of development, such as those measured by the **Letter-Word Identification**, **Rapid Picture Naming**, **Sentence Repetition**, and **Writing** tests. The **Writing** test is a downward extension of the **WJ IV Spelling** test that focuses on early pencil and paper writing skills. **Sound Blending** and **Picture Vocabulary** also have different items than—and increased item density when compared to—their corresponding **WJ IV OL** tests.

[Sensitivity to Developmental Delay](#)

The Individuals with Disabilities Education Act (IDEA, 2004) includes provisions for identification and education of children under a category of developmental delay for children ages 2:6 through 9:11, or any subset of that age range, including

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ages 2:6–7:11. Most states allow use of the developmental delay category for ages 3–5; many states have extended the option to use the developmental delay terminology for children up to ages 6 or 7; some states allow a child to receive special educational services under this or a similar non-categorical term through age 9.

A developmental delay is different from a handicapping condition or learning disability—it is a noticeable lag in the acquisition of critically important developmental abilities or skills. A delay can occur as the result of a number of genetic or environmental factors. Environmental factors, such as lack of enrichment or learning opportunities, are particularly responsive to early intervention. A developmental delay can be in any one (or more) of five domains: **cognitive**, communication, adaptive, social-emotional, and motor development.



To promote early intervention services for children with disabilities, IDEA 2004 requires public schools to provide screening and comprehensive assessment for developmental delay for children beginning at age 3. It is important to identify delays early so that an individual education plan can be put in place to increase the acquisition of ability or skill development, or, in some cases, eliminate the delay entirely.

ECAD W Diff Values and Levels of Cognitive and Academic Development

W Diff Values

+31 and above

+14 to +30

+7 to +13

-6 to +6

-13 to -7

-30 to -14

-50 to -31

-51 and below

Level of Development

Very Advanced

Advanced

Age-appropriate to Advanced

Age-appropriate

Mildly Delayed to Age-appropriate

Mildly Delayed

Moderately Delayed

Extremely Delayed

The **ECAD** may be useful for examiners who are called upon to provide an evaluation for **cognitive developmental delay** for at least two reasons. First, the **ECAD** can help examiners identify a delay in the early acquisition of Comprehension-Knowledge (Gc), Fluid Reasoning (Gf), Long-Term Retrieval (Glr), Short-Term Working Memory (Gwm), Auditory Processing (Ga), Visual Processing (Gv), Processing Speed (Gs), Reading-Writing

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(Grw), and Quantitative Knowledge (Gq) abilities. Second, the **ECAD's** underlying *W* scale is sensitive to the *degree* of disability through direct comparison to children of the same age, month by month. The *W* Diff, or *W* difference score, provides the most accurate description of the child's developmental status to other children of the same age, although other scores for determining developmental delay are also available in the **ECAD** (i.e., Months Delay; Percentage Delay; Standard Deviation Delay).

The ECAD Promotes Early Intervention

The **ECAD** is sensitive to, and identifies developmental delay in, important aspects of emerging cognitive abilities. One of the reasons the **ECAD** is so exciting is that it can be used to identify specific cognitive and academic delays at an early age. With accurate identification, interventions can be tailored for an individualized educational plan for each student. Sometimes developmental delay can be minimized or even eliminated with early intervention.

Although designed primarily for children in the 2:6 through 7:11 age range, the **ECAD** is also appropriate for use with children with a cognitive or academic developmental delay through age 9:11. Examiners and school districts will also find the **ECAD** a valuable resource for identification of children in Kindergarten (and, in some states, even Grades 1 or 2) who may benefit from non-categorical services for cognitive developmental delay. In addition to the comprehensive evaluation of the different cognitive abilities and overall cognitive ability score, the **ECAD**

can also be useful as a screening instrument for a delay in expressive language or the development of early academic skills. If more information on a language developmental delay is required, examiners can supplement the **ECAD** results with tests from the **WJ IV Tests of Oral Language (WJ IV OL)**; Schrank, Mather, & McGrew, 2014a).



Finally, the procedures used in the development and interpretation of the **ECAD** have resulted in an instrument of very high technical standards for reliably and validly measuring **cognitive developmental delay**. Assessment Service Bulletin Number 4: The **WJ IV Tests of Early Cognitive and Academic Development: Overview and Technical Abstract** (LaForte, McGrew, & Schrank, 2015) contains a thorough overview and relevant technical information about the **WJ IV ECAD**. To view or print this bulletin, [click here](#).

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