

The importance of multiple measures in psychoeducational evaluation

Learning is a complex, individualized experience. No two learners are the same, making rigorous psychoeducational evaluation a nuanced, delicate practice. When conducting educational achievement testing, evaluators have a rare and real opportunity to help set an individual on a path to educational success. However, the risks of misidentification or recommendation of sub-optimal interventions are equally real. Without question, the best way to ensure quality outcomes and mitigate risks is to develop a comprehensive view of achievement. To fully understand achievement and ensure the best possible outcomes, professional evaluators should always consider combining insights from two or more trusted measures of achievement and/or cognition.

Better evidence, better outcomes

For purposes of psychoeducational evaluation, no single score should be considered sufficient evidence to guide classification, identification, or other decision-making that can significantly impact an individual's future (Wright et al, 2020). This is especially true for qualified clinical psychologists, school psychologists, and educational professionals.

Although psychoeducational measurement and evaluation often begins with a specific referral question, selecting a quality measurement tool is only the beginning of the evaluative process. Even specific referrals often require analysis of related subskills in the area of interest. In order to properly address a referral question, professionals must have the ability to integrate and interpret results from multiple sources. In nearly every case, multiple lines of evidence will provide improved understanding of the individual being tested and can better inform recommendations and interventions than any single measure possibly could.

In recent years, the advancement of digital assessment systems such as Pearson's Q-interactive®, and the expansion of the Digital Assessment Library for Schools have empowered professionals to efficiently design an evaluation using multiple assessments. This paper will provide specific examples of how trusted educational achievement measures can be combined using a digital assessment system and used to support a comprehensive view of an individual's achievement, academic skills, and cognitive functioning. Each pairing is illustrated by a success story where multiple measures helped ensure a positive outcome.

*"No single test score should ever make a clinical decision for us, even under the most optimal conditions."
(Wright et al, 2020)*

Achievement-ability pairing: WIAT-4 + WISC-V

Expert psychoeducational evaluators have relied upon **Wechsler Individual Achievement Test® (WIAT®)** and **Wechsler Intelligence Scale for Children® (WISC®)** for many years. With the release of the WIAT-4, pairing WIAT-4 with WISC-V continues to be a powerful strategy for addressing many referral questions. Cognitive skills assessed by the WISC-V offer insight into patterns of performance on the WIAT-4. This robust pairing leads to a rich and full understanding of individual performance and helps inform recommendations and intervention strategies.



Challenges that pairing WIAT-4 and WISC-V can help address include (but are not limited to):

- Exploring relations between academic weaknesses and cognitive strengths
- Informing interpretation of achievement results considering questions regarding quality of previous academic experience
- Understanding root causes of changes in academic success over time or across educational settings
- Helping contextualize achievement results in cases where developmental disabilities and/or neurological issues impose additional challenges

The new WIAT-4

Expanding on the flexibility of this widely used achievement test, the WIAT-4 is suitable in a multitude of settings and available to a wide array of professions. Featuring 5 new subtests, 5 new composite scores, automated scoring of Essay Composition, and Dyslexia Index measures included in every kit, the WIAT-4 helps you identify supports and strategies for greater academic achievement.

Learn more about WIAT-4 at [PearsonAssessments.com/WIAT-4](https://www.pearsonassessments.com/WIAT-4)

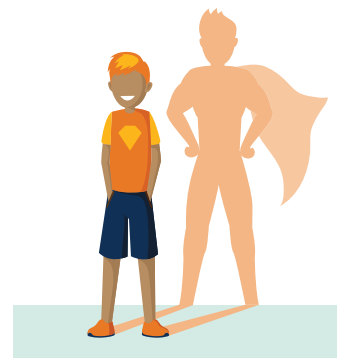
ISAAC'S STORY

Isaac was referred for educational testing due to concerns related to his speech-language skills, ability and motivation to complete schoolwork, and questions about lack of social engagement. He and his family had moved multiple times and he had not received consistent help with an obvious speech articulation problem that made it difficult for others to understand him. In the most recent educational setting, Isaac often did not talk unless spoken to, and then usually would say only a word or two. Isaac also tended not to engage with others and would keep his head down to avoid engagement. His teachers became more concerned when he seemed to have difficulty completing his schoolwork and would give up easily or would refuse tasks entirely.

Isaac's teachers mentioned concern about a possible developmental disability. The special education evaluation team decided that a comprehensive evaluation was needed in order to assess Isaac's academic skills and cognitive functioning because it was difficult to ascertain the reasons why he was struggling with completion of schoolwork. A speech-language evaluation was planned in order to assess the extent of Isaac's articulation difficulties and determine if Isaac also experienced problems with language processing. Finally, rating scales were given to Isaac's mother and teachers to assess Isaac's emotional, behavioral, and adaptive functioning and to supplement information obtained from classroom observations.

As part of the comprehensive evaluation, the evaluation team chose to use the WISC-V and WIAT-4 for assessment of cognitive functioning and academic skills, respectively. In addition, the speech-language assessment included the **Clinical Evaluation of Language Fundamentals®, Fifth Edition (CELF®-5)** and **Goldman-Fristoe Test of Articulation™ 3 (GFTA™-3)**. Rating forms included the **Behavior Assessment System for Children™, Third Edition (BASC™-3)** and **Vineland™ Adaptive Behavior Scales, Third Edition (Vineland™-3)**. Based on interview information from teachers and BASC-3 teacher report forms, identification of a developmental disability or cognitive delay seemed likely. A Vineland-3 parent interview and BASC-3 parent rating form confirmed Isaac's difficulty with following through on tasks and behavior that seemed like defiance. However, information from Isaac's mother was not consistent with developmental disability criteria.

Isaac performed in the low average range on the WIAT-4 subtests that measure oral language and processing skills, and in the average to above average range on all other WIAT-4 subtests. Evaluation with WISC-V revealed Isaac had above average cognitive skills in every area except processing speed. In order to determine if Isaac's performance on the WISC-V Processing Speed subtests could be due to a fine-motor deficit, the **Beery-Buktenica Developmental Test of Visual-Motor Integration™, 6th Edition (Beery™ VMI)** was administered, and his average scores ruled out problems with fine-motor skills.



Isaac had given up trying to please adults and performed in accordance of their expectations of him instead of to his true ability.

Isaac performed poorly on tasks requiring oral language (specifically, articulation skills) and language processing, as well as on timed tasks. Moreover, behavioral observations during the evaluation indicated Isaac tended to give up easily if verbal communication was required or if tasks became difficult. In those moments, Isaac seemed to avoid eye contact, as if he was experiencing a lack of confidence or feelings of defeat. Yet, Isaac did not avoid eye contact with the examiner during social interaction.

A whole-child approach resulted in a very simple solution

Considering these patterns holistically, the team concluded that an identification of a developmental disability or behavior disorder was not appropriate for Isaac, as the original referral may have implied. Rather, by noting Isaac's cognitive strengths and weaknesses and their relation to WIAT-4 performance, the team was able to recommend reasonable accommodations as part of an Individualized Education Program (IEP).

First, it was noted that Isaac needed more time to complete certain tasks. When the adults caring for and educating Isaac understood he needed more time to process information, he was no longer in a situation that confused him and led to him shutting down. This also prevented Isaac from appearing defiant and being punished for something he could not help. Second, emphasis was placed on making sure Isaac was encouraged to try his best and that teachers and others working with him provided a feeling of confidence in his ability to meet and exceed his goals. It was important for Isaac to have opportunities for more challenge in areas of strength and interest to continue to build his confidence and prevent him from shutting down due to boredom. Third, Isaac was referred for intensive speech-language therapy to address his articulation difficulties and language processing. Finally, Isaac was referred to the school social worker and to an outside therapist to improve his self-confidence and help him manage feelings of frustration more constructively.

Prior to the evaluation, the adults in Isaac's life had often assumed Isaac was being uncooperative or defiant while all along he was simply taking some extra time to process their requests. As a result, Isaac was not able to demonstrate his proficiency or understanding in academic areas where time is a factor, and difficulty with speech articulation and handwriting compounded the issue. Over time, Isaac had given up trying to please adults and performed in accordance of their expectations of him instead of to his true ability.

After the evaluation, it was determined that Isaac qualified for special education to address his articulation and language processing skills, processing speed deficits, work refusals, and lack of confidence. With the knowledge that Isaac needed more time to process information before responding, Isaac's teachers were able to accommodate and adapt. Isaac was able to learn that he could be successful in completing tasks, especially in tasks that challenged him in areas of interest and/or strength, while being able to tolerate the effort needed to complete tasks that were harder for him. It was important for Isaac's teachers to expect that he was capable of learning at a high level. Building Isaac's frustration tolerance and ability to believe in himself contributed to successes in academics and socially.

Had the evaluator not employed an achievement-ability pairing, what might have happened to Isaac? What if the evaluator had not considered Isaac's behavioral patterns during the evaluation? Most likely, if the evaluation had not included testing to evaluate cognitive skills and the reasons behind Isaac's challenges would not have come to light, his strengths may have gone unnoticed. If the evaluator had not paid careful attention to behavioral patterns, Isaac may have been misdiagnosed with autism spectrum disorder or a learning disability that was not present.

Isaac's story is a reminder that meeting a qualification or validating hypothetical diagnoses should not be the goal of a rigorous psychoeducational evaluation. To ensure the best possible outcomes, it is imperative that evaluators gather as much information as possible to inform interpretation and protect the individuals they serve.

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The flexibility that Q-interactive provides for administration and scoring of all the assessments listed above makes using a multi-assessment approach easier and more efficient than ever before. Learn more at [PearsonAssessments.com/digitalforschools](https://www.pearsonassessments.com/digitalforschools).



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Comprehensive Achievement: WIAT-4 + KTEA-3

Each test has unique characteristics that, when considered collectively, help ensure an optimal outcome. For example, the **WIAT-4** and **Kaufman Test of Educational Achievement™, Third Edition (KTEA™-3)** are both widely used achievement assessments. However, given differences in task demands and slight variations in scope and measurement approach, these two assessments can offer a highly effective pairing. As shown in Table 1, combining subtests across WIAT-4 and KTEA-3 provides a comprehensive view of achievement in multiple areas of interest. In addition, the KTEA-3 offers a **KTEA-3 Brief** form for rapid prereferral screening or progress monitoring via an efficient 3-subtest battery.



Challenges that pairing WIAT-4 and KTEA-3 can help address include (but are not limited to):

- Ensuring coverage of all construct areas required by state law for special education evaluations
- Pinpointing an individual's specific academic needs, especially in complex cases
- Optimizing intervention goals around known gaps or delays in multiple academic areas
- Understanding inconsistencies between an individual's performance in one educational setting or school and their prior setting/ circumstances.
- Validating or revisiting results from prior evaluation(s)

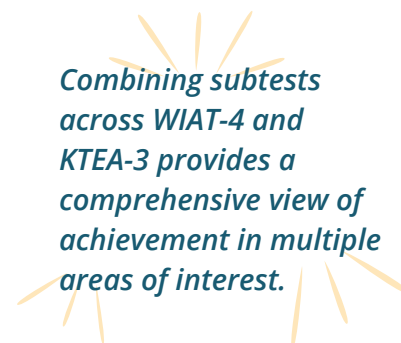


Table 1. KTEA-3 and WIAT-4 Subtest Comparison by Domain

Domain	KTEA-3 Subtests	WIAT-4 Subtests
Listening	Listening Comprehension	Listening Comprehension: Receptive Vocabulary, Oral Discourse Comprehension
Speaking	Oral Expression Associational Fluency	Oral Expression: Expressive Vocabulary, Oral Word Fluency, Sentence Repetition
Reading	Letter & Word Identification Nonsense Word Decoding Word Recognition Fluency Decoding Fluency Reading Comprehension Silent Reading Fluency Reading Vocabulary	Word Reading Pseudoword Decoding Orthographic Fluency Decoding Fluency Reading Comprehension Oral Reading Fluency
Writing	Spelling Written Expression Writing Fluency	Spelling Sentence Composition Essay Composition Alphabet Writing Fluency Sentence Writing Fluency
Reading/Writing-Related Processes	Phonological Processing Object Naming Facility Letter Naming Facility	Phonemic Proficiency Orthographic Choice
Mathematics	Math Computation Math Concepts & Applications Math Fluency	Numerical Operations Math Problem Solving Math Fluency – Addition Math Fluency – Subtraction Math Fluency – Multiplication

ARIELA'S STORY

Ariela was halfway through 2nd grade and had started facing reading difficulties. She had been falling behind other students in her reading skills, but was a motivated, hard-working student who had been able to compensate. A reading teacher raised concerns to Ariela's parents, and they confirmed that Ariela also struggled with reading at home and shared the teacher's concerns. The teacher made some initial attempts to assist via instructional differentiation, however, Ariela was still not catching up. Her parents and the teacher agreed Ariela should be screened to identify any specific reading-related needs.

To start investigating, the teacher completed an initial screening of Ariela's reading skills with the **Shaywitz DyslexiaScreen™***. The results indicated that Ariela may be at risk for dyslexia. A reading specialist obtained more information by administering the WIAT-4 Dyslexia Index. The WIAT-4 scores showed that Ariela was a child at risk for dyslexia, supporting the concerns from her teacher and parents. At this point, Ariela was referred to the Special Education department as a more in-depth assessment of her reading skills was warranted.

The school psychologist who conducted the assessment decided to do a psychoeducational evaluation for reading skills. The remaining subtests of the WIAT-4 were administered, as the WIAT-4 subtests previously administered for the Dyslexia Index score could be utilized in the full evaluation without re-administration. In addition, subtests from KTEA-3 were administered in areas not assessed with the WIAT-4. Because of state requirements for dyslexia evaluations to include rapid automatized naming (RAN) tasks, the Object Naming Facility and Letter Naming Facility subtests from the KTEA-3 were administered. The Phonological Processing subtest of the KTEA-3 was also administered to evaluate phonological awareness as a complement to the Phonemic Proficiency subtest on the WIAT-4. Furthermore, the WISC-V was administered for to rule out cognitive functioning as a contributor to Ariela's academic difficulties. This approach supported a balance between comprehensive and targeted evaluation for Ariela's academic skills and cognitive ability.

The special education team, in collaboration with Ariela's parents, determined that Ariela's scores were indicative of a specific learning disorder in reading and required special education intervention. An Individualized Education Program (IEP) was developed for Ariela to help teachers address the specific reading challenges Ariela faced, as well as monitor progress over time as her skills improved. By co-developing the IEP, Ariela's parents became advocates and allies in her continued educational achievement.

Would a single screening or achievement measurement have supported a comprehensive IEP for Ariela? Would a reading disorder identification alone have helped Ariela's parents feel confident in their child's educational support? In Ariela's case, Shaywitz DyslexiaScreen started an iterative process of information gathering and interpretation. Rather than focusing on identification of a specific disorder, a careful consideration of patterns and the layering together of multiple measurements, particularly the complementary use of the WIAT-4 and KTEA-3, delivered a positive outcome for Ariela and her family.



Would a reading disorder identification alone have helped Ariela's parents feel confident in their child's educational support?

WIAT-4 + KABC-II-NU

The **WIAT-4** and **Kaufman Assessment Battery for Children™, Second Edition Normative Update (KABC™-II-NU)** may be used together in assessment to provide a comprehensive view of cognitive processes and learning skills. If there are performance discrepancies on the WIAT-4, KABC-II-NU may help guide interpretation of results, development of next-step recommendations, and planning of appropriate educational interventions. A comprehensive view helps prevent overlooking important information and ensures that any recommendations are data-driven.

Challenges that pairing WIAT-4 and KABC-II-NU can help address include (but are not limited to):

- Revealing information that helps explain unexpected results in an achievement measurement
- Considering whether under-achievement is the result of mild cognitive difficulties
- Exploring potential causality for academic challenges, especially when lacking prior records
- Supporting a potential or prior special education referral with cognitive information
- Analyzing for potential cognitive and academic impacts following an injury or medical issue

RILEY'S STORY

Riley was having great difficulty with attention and impulse control in the classroom. These symptoms were significant enough that Riley's guardian consulted with a neuropsychologist. Riley was diagnosed with Attention Deficit Hyperactivity Disorder (ADHD). Riley's teachers were informed of the ADHD diagnosis, but had great difficulty determining which of Riley's learning difficulties were most related to ADHD symptoms. The teachers suspected that Riley's ADHD would require accommodations, but they were unsure of what specific changes to make to his instruction. To ensure he received appropriate instructional modifications, Riley's guardian requested a comprehensive psychoeducational evaluation.

The evaluation team decided to include the WIAT-4, KABC-II-NU, **Sensory Profile™-2**, and BASC-3. In addition, the school psychologist collaborated with Riley's neuropsychologist who was able to share data from subtests of the WISC-V and **NEPSY®, Second Edition (NEPSY®-II)**. The school psychologist chose the KABC-II-NU to validate the neuropsychologist's findings while avoiding retesting with the WISC-V.

After the evaluation, a multi-disciplinary school team met to design Riley's IEP in collaboration with Riley's guardian and Riley's neuropsychologist. The evaluation suggested that Riley's attention and concentration skills were significant impairments. Specifically, Riley struggled when completing tasks requiring rapid cognitive processing, memory-related tasks, and tasks that required sustained attention. As a result, Riley would likely struggle to participate autonomously alongside peers while reading, writing, and working with mathematics. However, when provided with frequent reminders and redirections to task, Riley's skills in these areas were in the average range. In addition, the Sensory Profile-2 indicated that Riley became overstimulated by loud noises and nearby activities that generated a lot of ambient noise.

Equipped with these insights, the team discussed strategies for helping Riley cope with overstimulation, including wearing noise-cancelling headphones when appropriate. In rare cases, Riley would be pulled into a quiet space with a para-professional available to assist with regulation, focus, and concentration.



Teachers suspected that Riley's ADHD would require accommodations, but they were unsure of what specific changes to make.

Having the wealth of information provided by the WIAT-4, KABC-II-NU, and other assessments empowered Riley's IEP team to identify specific areas of need and isolate problems that were a byproduct of his ADHD symptoms. As a result, Riley was able to receive targeted interventions to assist with his attention and concentration difficulties, as well as to address how ADHD was affecting his academic achievement. Riley's ADHD diagnosis was insufficient in guiding the IEP team in developing a plan to help Riley succeed in school. However, after taking a comprehensive view of Riley's skills and abilities, the team was able to build a targeted plan to provide the structure and supports Riley needed to succeed.

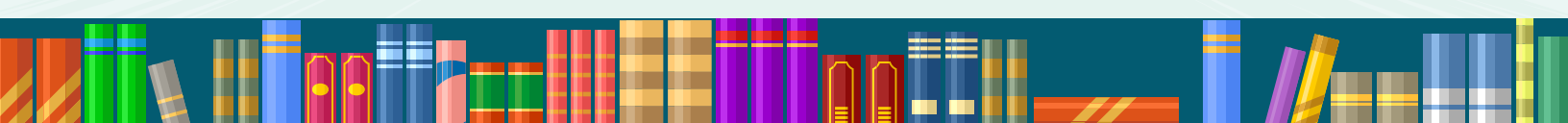
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Don't stop at identification!

In all three cases, using one assessment alone for identification or validation purposes would have resulted in a negative or sub-optimal outcome for the learner. Fortunately, Isaac, Ariela, and Riley all had dedicated professionals, psychologists, and parental support on their side. As these examples illustrate, it is imperative that any who have access to assessment tools wield them wisely and with utmost care, and that often means bringing multiple tools to an evaluation. With the ability to make customized batteries and seamlessly integrate data across multiple assessments, today's evaluators have more power than ever before to go beyond identification of possible disability to help learners get the support they need to succeed.

Multiple assessments. One subscription.

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