

Outcome Measure	Weschler Intelligence Scale for Children 5th Ed. (WISC-V): Working Memory Index, Processing Speed Index
Sensitivity to Change	Yes
Population	Paediatrics
Domain	Neuropsychological Impairment
Type of Measure	Objective assessment
ICF-Code/s	B1
Description	<p>The Wechsler Intelligence Scale for Children is referred to as the WISC. The WISC consists of a series of short subtests that are used to assess cognitive ability. Usually the scores are consistent across the lifespan.</p> <p>The WISC is an individually administered intelligence test for children between the ages of 6 and 16 inclusive that can be completed without reading or writing. The Fifth Edition (WISC-V) is the most current version. The WISC-V takes 48–65 minutes to administer and generates a Full Scale IQ (formerly known as an intelligence quotient or IQ score) which represents a child's general intellectual ability. It also provides five primary index scores (i.e., Verbal Comprehension Index, Visual Spatial Index, Fluid Reasoning Index, Working Memory Index, and Processing Speed Index) that represent a child's abilities in more discrete cognitive domains. Five ancillary composite scores can be derived from various combinations of primary or primary and secondary subtests. Five complementary subtests yield three complementary composite scores to measure related cognitive abilities relevant to assessment and identification of learning problems.</p> <p>The WISC–V shows increased flexibility and interpretive power, along with access to more subtests, provides a broader view of a child's cognitive abilities. New subtests are targeted to common referral questions for children such as the presence of a specific learning disability; and special clinical situations such as evaluations of children who are English language learners. An expanded factor structure provides new and separate visual spatial and fluid reasoning composites for all ages.</p> <p>New Primary Subtests: Three new primary subtests extend the content coverage of the WISC-V and increase its practical application.</p> <ul style="list-style-type: none"> • Visual Puzzles is a new Visual Spatial subtest that measures the ability to analyse and synthesise information • Figure Weights is a new Fluid Reasoning subtest that measures quantitative reasoning and induction • Picture Span is a new Working Memory subtest that measures visual working memory

	<p>New Complementary Subtests: Five new complementary subtest have been added to assess cognitive processes important to academic achievement in reading, math and writing, and have shown sensitivity to specific learning disabilities and other clinical conditions. These subtests include a measure of naming facility (Naming Speed and Naming Quantity) and visual-verbal associative memory (Immediate, Delayed and Recognition Symbol Translation).</p> <p>Expanded and Updated Factor Structure: The test structure includes new and separate visual spatial and fluid reasoning composites for greater interpretive clarity and a variety of levels of composites for interpretive options.</p> <p>Primary Index Scales include:</p> <ul style="list-style-type: none"> • Verbal Comprehension Index (VCI) • Visual Spatial Index (VSI) • Working Memory Index (WMI) • Fluid Reasoning Index (FRI) • Processing Speed Index (PSI) <p>Ancillary Index Scales include:</p> <ul style="list-style-type: none"> • Quantitative Reasoning Index (QRI) • Auditory Working Memory Index (AWMI) • Nonverbal Index (NVI) • General Ability Index (GAI) • Cognitive Proficiency Index (CPI) <p>Complementary Index Scales include:</p> <ul style="list-style-type: none"> • Naming Speed Index (NSI) • Symbol Translation Index (STI) • Storage and Retrieval Index (SRI) <p>Users and Applications: School psychologists, clinical psychologists and neuropsychologists working in schools, clinics, hospitals, universities and forensics can use the WISC–V for diverse applications such as:</p> <ul style="list-style-type: none"> • identifying intellectual disabilities, • identifying and diagnosing learning disabilities/disorders, • evaluating of cognitive processing strengths and weaknesses, • assessing for giftedness, and • assessing the impact of brain injuries
Properties	<p>Ages: 6 years to 16 years 11 months</p> <p>Completion Time: ~ 60 minutes (Core subtests)</p> <p>Administration: Paper-and-pencil or digital</p> <p>Scores / Interpretation: FSIQ, Primary Index Scores, and Ancillary Index</p>

	<p>Scores</p> <p>Psychometric Properties:</p> <ol style="list-style-type: none"> 1) Updated normative sample standardised on 2,200 children aged 6:0–16:11; 2) Normative sample stratified to match current U.S. census data based on sex, race/ethnicity, parent education level, and geographic region for each age group; 3) Strong subtest floors and ceilings facilitate accurate measurement at the extremes of cognitive ability; 4) Comparable or improved reliability for subtest and composite scores; 5) Updated special group studies 6) Updated validity studies with other measures including WISC–IV, WPPSI–IV, WAIS–IV, WIAT–III, KTEA-3, Vineland-II, and BASC-2; 7) Expanded validity evidence for the Q-interactive version, including construct validity studies and equivalence of Q-interactive and paper/pencil formats, and special group studies to examine patterns of performance of children from frequently-tested populations.
<p>Advantages</p>	<p><u>More efficient and user-friendly</u></p> <p>The WISC–V increases construct coverage without increasing testing time. This allows a more efficient, developmentally appropriate measure – and still have time to assess other domains of interest.</p> <ul style="list-style-type: none"> • Efficiently produce all primary index scores • Significantly reduced testing time to obtain the FSIQ • Simplified instructions with reduced vocabulary level, shorter discontinue rules, and refined scoring criteria • Five primary index scores, the FSIQ as well as three of the five ancillary index scores can be obtained through the ten primary subtests <p><u>More interpretive power</u></p> <ul style="list-style-type: none"> • WISC–V provides statistical links to two measures of academic achievement, the KTEA-3 and the WIAT–III, to support more flexible evaluation of specific learning disabilities and two major approaches to specific learning disability identification: pattern of strengths and weaknesses analyses and ability-achievement

	<p>discrepancy analyses</p> <ul style="list-style-type: none"> • Expanded score analysis approach highlights index- and subtest-level strength and weaknesses analyses • Separate visual spatial and fluid reasoning composite scores results in greater interpretive clarity • Selection of process scores has been greatly expanded to enhance the depth of interpretation and understanding of performance
Disadvantages	-
Additional Information	<p>The WISC can be used as part of an assessment battery to identify intellectual giftedness, learning difficulties, and cognitive strengths and weaknesses. When combined with other measures such as the Adaptive Behaviour Assessment System–II (ABAS–II; Harrison & Oakland, 2003) and the Children's Memory Scale (CMS; Cohen, 1997) its clinical utility can be enhanced. Combinations such as these provide information on cognitive and adaptive functioning, both of which are required for the proper diagnosis of learning difficulties and learning and memory functioning resulting in a richer picture of a child's cognitive functioning.</p>
Reviewers	<p>Vicki Anderson Cathy Catroppa</p>

References

Daniel, M. H., Wahlstrom, D., & Zhou, X. (2014). Equivalence of Q-interactive® and paper administrations of language tasks: Selected CELF®–5 tests (Q-interactive Technical Report 7). Bloomington, MN: Pearson.

Semel, E., Wiig, E. H., & Secord, W. A. (2013). Clinical evaluation of language fundamentals® –fifth edition. Bloomington, MN: Pearson.

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