**SCORES USED WITH THE TESTS IN THIS REPORT**

When a new test is developed, it is *normed* on a *sample* of hundreds or thousands of people. The sample should be like that for a good opinion poll: female and male, urban and rural, different parts of the country, different income levels, etc. The scores from that norming sample are used as a yardstick for measuring the performance of people who then take the test. This human yardstick allows for the difficulty levels of different tests. The student is being compared to other students on both difficult and easy tasks. You can see from the illustration below that there are more scores in the middle than at the very high and low ends. Many different scoring systems are used, just as you can measure the same distance as 1 yard, 3, feet, 36 inches, 91.4 centimeters, 0.91 meter, or 1/1760 mile.

**PERCENTILE RANKS (PR)** simply state the percent of persons in the norming sample who scored the same as or lower than the student. A percentile rank of 50 would be Average – as high as or higher than 50% and lower than the other 50% of the norming sample. The middle half of scores falls between percentile ranks of 25 and 75.

**STANDARD SCORES** ("quotients" on some tests) have an average (*mean)* of 100 and a *standard deviation* of 15. A standard score of 100 would also be at the 50th percentile rank. The middle half of these standard scores falls between 90 and 110.

**SCALED SCORES** ("standard scores on some tests) are standard scores with an average (*mean)* of 10 and a *standard deviation* of 3. A scaled score of 10 would also be at the 50th percentile rank. The middle half of these standard scores falls between 8 and 12.

|  |  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- | --- |
|  |  |  |  | **&& &&** |  |  |  |
|  |  There are  | 200 **&**s. |  | **&&&&&& &&&&&&** |  |  |  |
|  |  Each **&&** | = 1%. |  | **&&&&&& &&&&&&** |  |  |  |
|  |  |  |  **&&**  | **&&&&&& &&&&&&** |  **&&** |  |  |
|  |  |  | **&&&&&&** | **&&&&&& &&&&&&** | **&&&&&&** |  |  |
|  |  |  | **&&&&&&** | **&&&&&& &&&&&&** | **&&&&&&** |  |  |
|  |  |  **&** | **&&&&&&** | **&&&&&& &&&&&&** | **&&&&&&** |  **&** |  |
|  |  | **&&&&&&**  | **&&&&&&** | **&&&&&& &&&&&&** | **&&&&&&** | **&&&&&&** |  |
|  |  **& & & &**  | **&&&&&&** | **&&&&&&** | **&&&&&& &&&&&&** | **&&&&&&** | **&&&&&&** |  **& & & &** |
|  |  |  |  |  |  |  |  |
| Percent in each | 2.2% | 6.7% | 16.1% | 50% | 16.1% | 6.7% | 2.2% |
| Standard Scores | – 69 | 70 – 79 | 80 – 89 | 90 – 109 | 110 – 119 | 120 – 129 | 130 –  |
| Scaled Scores | 1 2 3 |  4 5  |  6 7 |  8 9 10 11 |  12 13 |  14 15 | 16 17 18 19 |
| Percentile Ranks | – 02 | 03 – 08 | 09 – 24 | 25 – 74 | 75 – 90 | 91 – 97 | 98 –  |
| WISC-VClassification | Extremely Low | VeryLow | LowAverage | Average | HighAverage | VeryHigh | Extremely High |
| Other Wechsler Classification  | Extremely Low | Borderline | LowAverage | Average | HighAverage | Superior | VerySuperior |
| KTEA-3 10-pt. Classification  | VeryLow | Low | LowAverage | Average | HighAverage | Superior | VerySuperior |
| KTEA-3 15-pt. Classification | Very Low<55 | Low 55-69 | Below Average 70 – 84 | Average85 – 115 | Above Average116 – 130 | High 131-145 | Very High>145 |
| WIAT-III Classification | Very Low<55 | Low55 – 69  | Below Average 70 – 84 | Average85 – 115 | Above Average116 – 130 | Super-ior131-145 | Very Super-ior 146 –  |
| Stanines | Very Low – 73  | Low 74 – 81  | Below Average 82 - 88 | Low Average89 – 96  | Average97 – 103  | High Average104 - 111 | Above Average 112 – 118 | High119 – 126  | Very High127 –  |

Adapted from Willis, J. O. & Dumont, R. P., *Guide to identification of learning disabilities* (1998 New York State ed.) (Acton, MA: Copley Custom Publishing, 1998, p. 27). Also available at http://alpha.fdu.edu/psychology/test\_score\_descriptions.htm.

**Namexx's Scores for hxx Age on the Wechsler Intelligence Scale for Children, 5th ed. (WISC-V)**

Test scores in *Italics* are not included in the factor and full scale scores.

|  |  |  |  |  |
| --- | --- | --- | --- | --- |
| Subtests | TestScore[[1]](#footnote-1) | 95% Confi- dence[[2]](#footnote-2) | Per-cen-tile[[3]](#footnote-3) | QualitativeDescriptor[[4]](#footnote-4) |
| Verbal Comprehension Subtests |  |  |  |  |
| explaining how two different things could be similar (SI) |  |  |  |  |
| defining vocabulary words (VC) |  |  |  |  |
| *answering questions of social and practical comprehension (CO)* |  |  |  |  |
| *answering questions of general information (IN)* |  |  |  |  |
| **Verbal Comprehension Index (SI VC)** |  |  |  |  |
| Visual-Spatial Subtests |  |  |  |  |
| copying geometric designs with patterned cubes (BD)\*\* |  |  |  |  |
| *same subtest by norms without bonus points for speed (BDN)* |  |  |  |  |
| visually selecting puzzle pieces to match a whole puzzle (VP)\*  |  |  |  |  |
| **Visual-Spatial Index (BD VP)** |  |  |  |  |
| **Fluid Reasoning Subtests** |  |  |  |  |
| completing multiple-choice, logical matrix puzzles (MR) |  |  |  |  |
| solving mental equations using pictures of weights (FW)\* |  |  |  |  |
| *choosing one picture from each group to illustrate a concept (PCn)* |  |  |  |  |
| *oral math applications problems without paper and pencil (AR)[[5]](#footnote-5)\** |  |  |  |  |
| Fluid Reasoning Index (MR FW) |  |  |  |  |
| General Ability Index (GAI) (SI VC BD MR FW) |  |  |  |  |
| Working Memory Subtests |  |  |  |  |
| repeating series of dictated digits forward and backward (DS) |  |  |  |  |
| *score for accuracy in repeating dictated digits forward* |  |  |  |  |
| *score for accuracy in repeating digits in reverse order* |  |  |  |  |
| *score for accuracy in repeating digits in numerical sequence* |  |  |  |  |
| recalling previously seen pictures in the same sequence (PS) |  |  |  |  |
| *repeating digits and letters digits first, then letters (LN)* |  |  |  |  |
| **Working Memory Index (DS PS)** |  |  |  |  |
| Processing Speed Subtests |  |  |  |  |
| speed of transcribing a digit-symbol code on paper (CD)[[6]](#footnote-6)\*\* |  |  |  |  |
| speed of finding matching symbols in rows of symbols.(SS)\*\* |  |  |  |  |
| *speed of marking animal pictures among many others (CA)* |  |  |  |  |
| *score for pictures scattered randomly on the page* |  |  |  |  |
| *score for pictures arranged in rows on the page* |  |  |  |  |
| **Processing Speed Index (CD SS)** |  |  |  |  |
| **Cognitive Proficiency Index (CPI) (DS PS CD SS)** |  |  |  |  |
|  |  |  |  |  |
| Full Scale total (SI VC BD MR FW DS CD) |  |  |  |  |
|  |  |  |  |  |

**Namexx's Ancillary and Complementary Scores for hxx Age**

**on the Wechsler Intelligence Scale for Children, 5th ed. (WISC-V)**

|  |  |  |  |  |
| --- | --- | --- | --- | --- |
|  Subtests | TestScore[[7]](#footnote-7) | 95% Confi- dence[[8]](#footnote-8) | Per-cen-tile[[9]](#footnote-9) | QualitativeDescriptor[[10]](#footnote-10) |
| **Full Scale IQ (FSIQ) (SI VC BD MR FW DS CD)** |  |  |  |  |
| **Ancillary Composites** |  |  |  |  |
| solving mental equations using pictures of weights (FW)\* |  |  |  |  |
| oral math applications problems without paper and pencil (AR)[[11]](#footnote-11)\* |  |  |  |  |
| **Quantitative Reasoning Index (QRI)** |  |  |  |  |
| repeating series of dictated digits forward and backward (DS) |  |  |  |  |
| repeating digits and letters digits first, then letters (LN) |  |  |  |  |
| **Auditory Working Memory Index (AWMI)** |  |  |  |  |
| copying geometric designs with patterned cubes (BD)\*\* |  |  |  |  |
| completing multiple-choice, logical matrix puzzles (MR) |  |  |  |  |
| speed of transcribing a digit-symbol code on paper (CD)[[12]](#footnote-12)\*\* |  |  |  |  |
| solving mental equations using pictures of weights (FW)\* |  |  |  |  |
| visually selecting puzzle pieces to match a whole puzzle (VP)\*  |  |  |  |  |
| recalling previously seen pictures in the same sequence (PS) |  |  |  |  |
| **Nonverbal Index (NVI)** |  |  |  |  |
| explaining how two different things could be similar (SI) |  |  |  |  |
| defining vocabulary words (VC) |  |  |  |  |
| copying geometric designs with patterned cubes (BD)\*\* |  |  |  |  |
| completing multiple-choice, logical matrix puzzles (MR) |  |  |  |  |
| solving mental equations using pictures of weights (FW)\* |  |  |  |  |
| **General Ability Index (GAI)** |  |  |  |  |
| repeating series of dictated digits forward and backward (DS) |  |  |  |  |
| recalling previously seen pictures in the same sequence (PS) |  |  |  |  |
| speed of transcribing a digit-symbol code on paper (CD)[[13]](#footnote-13)\*\* |  |  |  |  |
| speed of finding matching symbols in rows of symbols.(SS)\*\* |  |  |  |  |
| **Cognitive Proficiency Index (CPI)** |  |  |  |  |
| **Complementary Composites** |  |  |  |  |
| Naming Speed Literacy (speed of naming pictures and letters) |  |  |  |  |
| Naming Speed Quantity (speed of counting small shapes) |  |  |  |  |
| Naming Speed Composite (NSI) |  |  |  |  |
| Immediate Symbol Translation (learning rebus symbols for words) |  |  |  |  |
| Delayed Symbol Translation |  |  |  |  |
| Recognition Symbol Translation |  |  |  |  |
| **Symbol Translation Composite (STI)** |  |  |  |  |
| **Storage & Retrieval Composite (SRI = NSI + STI)** |  |  |  |  |

**Wechsler Intelligence Scale for Children, 5th ed., Integrated (WISC-V). David Wechsler, The Psychological Corporation (Pearson), 2014.**

The WISC-V is an individual test that does not require reading or writing. Verbal Comprehension
(VCI) subtests are oral questions requiring oral answers. Fluid Reasoning (FRI) subtests are nonverbally presented, unfamiliar problems that require logical reasoning. Visual-Spatial (VSI) subtests are visual puzzles. Working Memory (WMI) subtests require remembering data (e.g., repeating dictated digits) or remembering and mentally manipulating data (e.g., repeating dictated digits in reversed order). Processing Speed (PSI) subtests measure speed on fairly simple paper-and-pencil tasks. Each composite includes two subtests. Seven of these subtests are included in the Full Scale IQ (FSIQ). One additional subtest of the same ability can be substituted for one primary subtest in the FSIQ if absolutely necessary. Subtest scores and composite scores are based on the scores of the 2,200 children originally tested in a very carefully designed, nationwide sample, but still must be interpreted very cautiously for any individ­ual, especially one who may have somewhat unusual patterns of strengths and weaknesses. As with any test, influencessuch as anxiety, motivation, fatigue, rapport, and experience may invalidate test scores.

#### Verbal Comprehension Composite

*Similarities*: explaining how two different things (e.g., horse and cow) or concepts (e.g., hope and fear) could be alike. Scoring is 2-1-0, according to the quality of the responses. (FS)

*Vocabulary*: giving oral definitions of words. Scoring is 2-1-0, according to the quality of the responses. (FS)

**Additional Verbal Comprehension Subtests**

C*omprehension*: oral questions of social and practical understanding. Scoring is 2-1-0, based on quality.

*Information*: oral, “trivia”-style, general information questions. Scoring is pass/fail.

#### Visual-Spatial Composite





*Block Design*\*\*: copying small geometric designs with four or nine larger plastic cubes. The most difficult items offer bonus points for speed. (FS)

*Visual Puzzles\**: selecting the three out of six shapes that could fit together to make the complex shape shown above the choices.

#### Visual-Spatial Process Subtest

***Block Design*** subtest by norms without bonuses for speed; pass/fail scoring only. Time limits still apply.

**Fluid Reasoning Composite**

*Matrix Reasoning*: completing logical arrangements of designs with missing

parts; multiple-choice. (FS)

*Figure Weights\**: multiple-choice, algebra-like problems using pictures on a balance scale

(e.g., 🕾🕾 = 🖯🖯🖯 ; 🖯 = ✄✄; 🕾 = how many ✄? (FS)

**Additional Fluid Reasoning Subtests**

*Picture Concepts:* choosing one picture from each of two or three rows so that the selected pictures all illustrate the same concept.

*Arithmetic*\*: oral, verbally framed math applications problems without paper. Scoring is pass/fail.

#### Standard Working Memory Composite

*Digit Span*: repeating increasingly long dictated series of digits (e.g., 4 1 7 9) forwards, other series backwards, and other series in numericdal order. Series begin with two digits and keep increasing in length, with two trials at each length. (Separate scores are also provided for Digit Span Forward, Digit Span Backward, and Digit Span Sequencing.) (FS)

*Picture Span*: the child sees one or more pictures on a page and then must find the same picture or pictures within a larger group of pictures on the next page. Scoring is 2 points for the correct pictures in the correct sequence and 1 for the correct pictures out of sequence. The sequences increase in length.

Additional Working Memory Subtest

*Letter-Number Sequencing*: repeating dictated series of letters and digits (e.g., 4 3 R 9 B) in numerical, then alphabetical order (e.g., 3 4 9 B R).

**Processing Speed Composite** 1 2 3 4 5 6 7 8 9

*Coding A*\*\*: marking rows of shapes with different lines according to a ⊥ ↑ > ↔ Π ∩ ∅ ∴ ↓

 code as quickly as possible for 2 minutes (under age 8) (FS)

C*oding* *B*\*\*: transcribing a digit-symbol code as quickly as possible for 3 7 4 1 2 9 6 5 2 1 4

two minutes (age 8 and older). (FS)

*Symbol Search*\*\*: deciding if target symbols appear in a

row of symbols and marking *YES* or *NO* accordingly. ⊥ ↑ > ↔ Π ∩ ⊥ ∅ ∴ ↓ YES NO

Additional Processing Speed Subtest

*Cancellation****:*** speed of marking all the animals among pictures of many things. (Separate scores are also provided for the Random and Structured tasks.)

The **Full Scale IQ** score is derived from the sum of the scaled scores on the seven subtests marked with (FS) above with one substitution of a subtest in the same category permitted if absolutely necessary. The Full Scale IQ summarizes overall performance on the abilities measured by the WISC-V, but its usefulness diminishes as variability increases among the component scores. Also, it obviously does not reflect abilities not measured by the WISC-V.

The **General Ability Index** (GAI) is derived from the sum of scaled scores on Block Design, Similarities, Matrix Reasoning, Vocabulary, and Figure Weights. It measures higher-level verbal and nonverbal thinking abilities without the Working Memory and Processing Speed subtests.

The **Cognitive Proficiency Index** (CPI) is derived from the sum of scaled scores on the four Working Memory and Processing Speed subtests. It measures more automatic, less intellectual "processing" abilities.

The **Quantitative Reasoning Index** (QRI) is derived from scores on Figure Weights and Arithmetic.

The **Auditory Working Memory Index** (AWMI) is derived from Digit Span and Letter-Number Sequencing.

**The Nonverbal Index** (NVI) includes Block Design, Matrix Reasoning, Coding, Figure Weights, Visual Puzzles, and Picture Span.

**Complementary Subtests**

*Naming Speed Literacy* measures the speed of naming colored objects (e.g., "green horse" or "big green horse") and, for older examinees, reading random letters aloud.

*Naming Speed Quantity* measures the speed of saying how many little objects are shown in each frame.

**The Naming Speed Index** **(NSI)** is derived from these subtests.

*Immediate Symbol Translation* requires the examinee to learn and "read" rebus symbols for words.

*Delayed Symbol Translation* is a retest after about a half hour.

*Recognition Symbol Translation* is a delayed retest of individual rebus symbols.

**The Symbol Translation Index (STI)** is derived from these subtests.

**The Storage and Retrieval Index (SRI)** is derived from the NSI and STI scores.

1. These are scaled scores for subtests and standard scores for totals and factors. Please see the explanation of test scores on

p. i of the Appendix. [↑](#footnote-ref-1)
2. Test scores can never be perfectly reliable, even on the very best tests. Lucky and unlucky guesses, barely beating or missing time limits, and other random influences inevitably alter scores. This score interval shows how much scores are likely to vary 95% of the time just by pure chance. [↑](#footnote-ref-2)
3. Percentile ranks tell the percentage of students of the same age or grade whose scores Namexx tied or exceeded. For example, a percentile rank of 36 would mean that Namexx scored as high as or higher than 36 percent of peers and lower than the other 64 percent. [↑](#footnote-ref-3)
4. Qualitative descriptors are arbitrary, are not evidence-based, and can make a difference of a single point appear meaningful. The descriptors used here are taken from xx. [↑](#footnote-ref-4)
5. \* Time limits. [↑](#footnote-ref-5)
6. \*\* Time limits and bonus points for speed. [↑](#footnote-ref-6)
7. These are scaled scores for subtests and standard scores for composites and complimentary subtests (Naming Speed and Symbol Translation). Please see the explanation of test scores on p. i of the Appendix. [↑](#footnote-ref-7)
8. Test scores can never be perfectly reliable, even on the very best tests. Lucky and unlucky guesses, barely beating or missing time limits, and other random influences inevitably alter scores. This score interval shows how much scores are likely to vary 95% of the time just by pure chance. [↑](#footnote-ref-8)
9. Percentile ranks tell the percentage of students of the same age or grade whose scores Namexx tied or exceeded. For example, a percentile rank of 36 would mean that Namexx scored as high as or higher than 36 percent of peers and lower than the other 64 percent. [↑](#footnote-ref-9)
10. Qualitative descriptors are arbitrary, are not evidence-based, and can make a difference of a single point appear meaningful. The descriptors used here are taken from xx. [↑](#footnote-ref-10)
11. \* Time limits. [↑](#footnote-ref-11)
12. \*\* Time limits and bonus points for speed. [↑](#footnote-ref-12)
13. [↑](#footnote-ref-13)