Association of Specialists in Assessment of Intellectual Functioning

ASAIF

http://www.asaif.net
WISC®-V
Wechsler Intelligence Scale for Children®
Fifth Edition
David Wechsler

Personal observations and opinions
by:
Jill A. Hartmann, M.EdD., SAIF
Specialist in the Assessment of Intellectual Functioning, SAU 24
Director, Hartmann Learning Center
Chairperson, Association of Specialists in Assessment of Intellectual Functioning (ASAIF)

jill.hartmann@sau24.org
www.hartmannlearning.com/
jhartmann@rivier.edu
jillahartmann@gmail.com
jillhartmann@hartmannlearning.com
www.asaif.net
and

John O. Willis, Ed.D., SAIF, **VCID**
Adjunct Senior Lecturer in Assessment
Rivier University
Assessment Specialist
Regional Services & Education Center

johnzerowillis@yahoo.com
jwillis@rivier.edu
http://www.myschoolpsychology.com
Much of this material was stolen from

Ron Dumont, Ed.D., NCSP
Director, School of Psychology
Fairleigh Dickinson University
Teaneck, NJ

http://www.myschoolpsychology.com

Dr. Dumont

exhausted interpreter
The Wechsler Intelligence Scale for Children® – Fifth Edition (WISC® V) and all materials are copyrighted by NCS Pearson, Inc. The PSI logo, PsychCorp, the Wechsler Intelligence Scale for Children and WISC are registered trademarks of Pearson Education, Inc.
This workshop is **NOT** an official PsychCorp or Pearson, Inc. presentation. It is merely the observations and opinions of two assessment specialists, intended to share useful information about using the WISC-V.
Notes on WISC-V® Administration

• RTFM

• "Any alteration in subtest administration order should be based on clinical need, not on examiner preference" (p. 30). Note such alterations on the record form and in the report.

• Special cautions for the complementary subtests (pp. 30-31), but just follow the prescribed order and you'll be fine.

• Record the start time of each subtest and the end time of Immediate Symbol Translation.
Notes on WISC-V® Administration

• Time between Immediate Symbol Translation (IST) and Delayed Symbol Translation (DST) and/or Recognition Symbol Translation (RST) **must** be 20 to 30 minutes. If necessary, take a break to delay DST and/or RST at least 20 minutes. If necessary, skip subtest(s) to ensure the time is not more than 30 minutes. Do not interrupt a subtest in the middle!

• RST is given immediately after DST or, if DST is not given, 20-30 minutes after IST. (If both DST and RST are given, RST may begin slightly more than 30 minutes after IST (pp. 30-31).
Notes on WISC-V Administration

• RTFM

• Use age-specific start points when provided. "Children suspected of having an intellectual disability or low cognitive ability . . . should always start with Item 1 . . . . Coding, Symbol Search . . . and Naming Speed . . . are always administered according to . . . chronological age" (p. 35).

• "Perfect score" means highest possible score.

• "Imperfect score" means less than that.
Notes on WISC-V Administration

• Perfect scores on the first two items given means forge ahead.

• If either of the first two items given has a less than perfect score, reverse until you get two consecutively numbered perfect scores in a row, one right next to the other in numerical order.
The *Wechsler Giveth and Wechsler Taketh Away* rules apply to the WISC-V:

"Regardless of the child's performance on items preceding the [age-appropriate] start point, full credit is awarded for preceding items if perfect scores are obtained on the age-appropriate start point and subsequent item" (p. 38) and,
Notes on WISC-V Administration

when reversing from the age-appropriate start point or giving extra items to be sure of a complete discontinue rule, "do not award points for those items beyond the correct discontinue point, even if the child's responses ordinarily would have earned credit" (p. 40). These rules protect the child and inter-examiner reliability from examiners' flawed judgment in selecting starting points.
Reverse: imperfect score on either of first two items given.

Discontinue after 2 consecutive scores of 0.

Child's age was 5:3, but I started with Item 1.

Raw Score: 7
Reverse: imperfect score on either of first two items given.

Discontinue after 2 consecutive scores of 0.

Started with Item 5 and thought Item 6 was correct. Then I wised up and reversed.

Raw Score:
Be conservative: When in doubt, tentatively score questionable items near the basal as wrong and questionable items near the ceiling as correct (p. 40).
Notes on WISC-V Administration

• Record everything the child says and does.
• Test record forms must be preserved as long as other educational records.
• Record forms, notes, and emails can and will be subpoenaed.
• Produce a record form that will show the opposing expert witness how a WISC-V should be done.
• Parents are allowed to inspect test record forms. Only in California are they always entitled to copies. Elsewhere (e.g., NH) they must be given copies if that is the only reasonable way for them to inspect them.
Record **Everything Verbatim**!

- You may need to recheck scores.
- Someone else may need to recheck scores.
- New questions about expressive language, visual perception, emotional issues or other concerns might arise later, requiring analysis of precise records of oral and other responses.
- Unfortunately, precise comparisons might be needed following a future neurological insult.
- Writing only incorrect responses reveals accuracy to the examinee.
Record Everything Verbatim!

• Do not abbreviate phrases and sentences; acknowledge every word. For example, "H₂O" should mean the student said "H₂O," not "water," "it is water," "hydrogen and oxygen," or "Each molecule of water contains two atoms of hydrogen and one of oxygen. 'Heavy water' has deuterium instead of hydrogen."

• Do abbreviate words, e.g., "Ech mlcl f wtr cntns 2 atms f hdrgn & 1 f oxgn. Hvy wtr hs dtrm nstd f hdrgn."

• Use digits, symbols, medical and scientific abbreviations when they save time.
Record **Everything Verbatim**!

- A key word in the question can be abbreviated with the initial letter and a line, e.g., in the response to a question about a hippopotamus, you could write "h_____ ."

- You can use and create special abbreviations. For example, IDK is used for "I don't know" if that is what the kid said. Similarly, you could consistently use IHNC ("I have no clue") or HTHSIK.

- (Q) = examiner queried. (R) = examiner repeated the question (when permitted). (rpt?) = examinee asked for a repetition (record exact words if unusual).

- Make one dot every second while waiting for a . . . . . . . . . . . response.
Administration

• When a response is queried (Q) score all of the entire, complete, total response as a whole. A queried 1-point response remains 1 point even if the added response is irrelevant and immaterial.

• "Spoiled" responses are rare. They reveal a fundamental misunderstanding of the concept (p. 54), not merely a poor or irrelevant response.
Structure

• Better alignment with WISC™-IV and WAIS™-IV.
• VIQ and PIQ are long gone.
• What would have been PRI is split into Gv (Visual Spatial) and Gf (Fluid Reasoning).
• GAI and CPI norms are right in the norms book!
• Nonverbal Index has been added.
WHAT'S NEW?
Updated Norms & Validity Studies

Updated Norms
- 2,200 children
- Age 6:0 – 16:11

Updated Validity Studies with other measures:
Pearson Q

• Q-Interactive – interactive, technology-based, assessment administration

• Q-Global – on-line scoring system
Administration Time

• Shorter Administration Time
• Primary Subtests: 56 – 67 minutes
• FSIQ Subtests: 41 - 49 minutes

• On the WISC-IV
  – Core Subtests: 65-80 minutes
Five (5!) Indexes

- Verbal Comprehension
- Visual Spatial
- Fluid Reasoning
- Working Memory
- Processing Speed
New Subtests - Primary

• Visual Puzzles – Visual Spatial
• Figure Weights – Fluid Reasoning
• Picture Span – Working Memory
New Subtests - Complementary

• Naming Speed Literacy
• Naming Speed Quantity
• Immediate Symbol Translation
• Delayed Symbol Translation
• Recognition Symbol Translation
Full Scale IQ

- Similarities
- Vocabulary
- Block Design
- Matrix Reasoning
- Figure Weights
- Digit Span
- Coding
# Administration Order

<table>
<thead>
<tr>
<th>WISC-V</th>
<th>WISC-IV</th>
</tr>
</thead>
<tbody>
<tr>
<td>Block Design</td>
<td>Block Design</td>
</tr>
<tr>
<td>Similarities</td>
<td>Similarities</td>
</tr>
<tr>
<td>Matrix Reasoning</td>
<td>Digit Span</td>
</tr>
<tr>
<td>Digit Span</td>
<td>Picture Concepts</td>
</tr>
<tr>
<td>Coding</td>
<td>Coding</td>
</tr>
<tr>
<td>Vocabulary</td>
<td>Vocabulary</td>
</tr>
<tr>
<td>Figure Weights</td>
<td>Letter-Number Sequencing</td>
</tr>
<tr>
<td>Visual Puzzles</td>
<td>Matrix Reasoning</td>
</tr>
<tr>
<td>Picture Span</td>
<td>Comprehension</td>
</tr>
<tr>
<td>Symbol Search</td>
<td>Symbol Search</td>
</tr>
</tbody>
</table>
# WISC-V Subtests and Composites

<table>
<thead>
<tr>
<th>Acronym</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>VCI</strong></td>
<td>Verbal Comp.</td>
</tr>
<tr>
<td><strong>FRI</strong></td>
<td>Fluid Reasoning</td>
</tr>
<tr>
<td><strong>PSI</strong></td>
<td>Processing Speed</td>
</tr>
<tr>
<td><strong>GAI</strong></td>
<td>General Ability</td>
</tr>
<tr>
<td><strong>QRI</strong></td>
<td>Quant. Reasoning</td>
</tr>
<tr>
<td><strong>AWMI</strong></td>
<td>Aud. Wkg. Mem.</td>
</tr>
<tr>
<td><strong>STI</strong></td>
<td>Symbol Translation</td>
</tr>
<tr>
<td><strong>VSI</strong></td>
<td>Visual Spatial</td>
</tr>
<tr>
<td><strong>WMI</strong></td>
<td>Working Mem.</td>
</tr>
<tr>
<td><strong>FSIQ</strong></td>
<td>Full Scale IQ</td>
</tr>
<tr>
<td><strong>CPI</strong></td>
<td>Cognitive Proficiency</td>
</tr>
<tr>
<td><strong>NVI</strong></td>
<td>Nonverbal</td>
</tr>
<tr>
<td><strong>NSI</strong></td>
<td>Naming Speed</td>
</tr>
<tr>
<td><strong>SRI</strong></td>
<td>Storage &amp; Retrieval</td>
</tr>
</tbody>
</table>
## WISC-V Subtests and Composites

<table>
<thead>
<tr>
<th></th>
<th>VCI</th>
<th>VSI</th>
<th>FRI</th>
<th>WMI</th>
<th>PISI</th>
<th>FSIQ</th>
<th>QR</th>
<th>AWMI</th>
<th>NVI</th>
<th>GAI</th>
<th>CPI</th>
<th>NSI</th>
<th>STI</th>
<th>SRI</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>2</td>
<td>Block Design</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>3</td>
<td>Similarities</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>4</td>
<td>Matrix Reasoning</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>5</td>
<td>Digit Span</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>6</td>
<td>Coding</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>7</td>
<td>Vocabulary</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>8</td>
<td>Figure Weights</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>9</td>
<td>Visual Puzzles</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>10</td>
<td>Picture Span</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>11</td>
<td>Symbol Search</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>12</td>
<td>Information</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>13</td>
<td>Picture Concepts</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>14</td>
<td>Letter-Number Seq.</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>15</td>
<td>Cancellation</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>16</td>
<td>Comprehension</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>17</td>
<td>Arithmetic</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>18</td>
<td>Naming Speed Literacy</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>19</td>
<td>Naming Speed Quantity</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>20</td>
<td>Immediate Symbol Translation</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>21</td>
<td>Delayed Symbol Translation</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>22</td>
<td>Recognition Symbol Translation</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>
WISC-V Subtests and Composites

Notes:

1. May be substituted for Block Design (only one substitution allowed [if unavoidable] and only in FSIQ).
2. May be substituted for Digit Span.
3. May be substituted for Coding.
4. May be substituted for Similarities or Vocabulary.
5. May be substituted for Matrix Reasoning.
6. May be substituted for Figure Weights.
<table>
<thead>
<tr>
<th></th>
<th>WISC-V Subtests, Primary Composites, and FSIQ</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>VCI</td>
</tr>
<tr>
<td>1</td>
<td>Block Design</td>
</tr>
<tr>
<td>2</td>
<td>Similarities</td>
</tr>
<tr>
<td>3</td>
<td>Matrix Reasoning</td>
</tr>
<tr>
<td>4</td>
<td>Digit Span</td>
</tr>
<tr>
<td>5</td>
<td>Coding</td>
</tr>
<tr>
<td>6</td>
<td>Vocabulary</td>
</tr>
<tr>
<td>7</td>
<td>Figure Weights</td>
</tr>
<tr>
<td>8</td>
<td>Visual Puzzles</td>
</tr>
<tr>
<td>9</td>
<td>Picture Span</td>
</tr>
<tr>
<td>10</td>
<td>Symbol Search</td>
</tr>
<tr>
<td>11</td>
<td>Information</td>
</tr>
<tr>
<td>12</td>
<td>Picture Concepts</td>
</tr>
<tr>
<td>13</td>
<td>Letter-Number Seq.</td>
</tr>
<tr>
<td>14</td>
<td>Cancellation</td>
</tr>
<tr>
<td>15</td>
<td>Comprehension</td>
</tr>
<tr>
<td>16</td>
<td>Arithmetic</td>
</tr>
<tr>
<td></td>
<td>WISC-V Subtests and Composites</td>
</tr>
<tr>
<td>---</td>
<td>--------------------------------</td>
</tr>
<tr>
<td>1</td>
<td>Block Design</td>
</tr>
<tr>
<td>2</td>
<td>Similarities</td>
</tr>
<tr>
<td>3</td>
<td>Matrix Reasoning</td>
</tr>
<tr>
<td>4</td>
<td>Digit Span</td>
</tr>
<tr>
<td>5</td>
<td>Coding</td>
</tr>
<tr>
<td>6</td>
<td>Vocabulary</td>
</tr>
<tr>
<td>7</td>
<td>Figure Weights</td>
</tr>
<tr>
<td>8</td>
<td>Visual Puzzles</td>
</tr>
<tr>
<td>9</td>
<td>Picture Span</td>
</tr>
<tr>
<td>10</td>
<td>Symbol Search</td>
</tr>
<tr>
<td>11</td>
<td>Information</td>
</tr>
<tr>
<td>12</td>
<td>Picture Concepts</td>
</tr>
<tr>
<td>13</td>
<td>Letter-Number Seq.</td>
</tr>
<tr>
<td>14</td>
<td>Cancellation</td>
</tr>
<tr>
<td>15</td>
<td>Comprehension</td>
</tr>
<tr>
<td>16</td>
<td>Arithmetic</td>
</tr>
<tr>
<td></td>
<td>WISC-V Subtests, Primary Composites, and FSIQ</td>
</tr>
<tr>
<td>---</td>
<td>---------------------------------------------</td>
</tr>
<tr>
<td></td>
<td>VCI</td>
</tr>
<tr>
<td>1</td>
<td>Block Design</td>
</tr>
<tr>
<td>2</td>
<td>Similarities</td>
</tr>
<tr>
<td>3</td>
<td>Matrix Reasoning</td>
</tr>
<tr>
<td>4</td>
<td>Digit Span</td>
</tr>
<tr>
<td>5</td>
<td>Coding</td>
</tr>
<tr>
<td>6</td>
<td>Vocabulary</td>
</tr>
<tr>
<td>7</td>
<td>Figure Weights</td>
</tr>
<tr>
<td>8</td>
<td>Visual Puzzles</td>
</tr>
<tr>
<td>9</td>
<td>Picture Span</td>
</tr>
<tr>
<td>10</td>
<td>Symbol Search</td>
</tr>
</tbody>
</table>

1. Block Design
2. Similarities
3. Matrix Reasoning
4. Digit Span
5. Coding
6. Vocabulary
7. Figure Weights
8. Visual Puzzles
9. Picture Span
10. Symbol Search
## WISC-V FSIQ (and VCI and FRI)

<table>
<thead>
<tr>
<th></th>
<th>VCI</th>
<th>VSI</th>
<th>FRI</th>
<th>WMI</th>
<th>PSI</th>
<th>FSIQ</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>Block Design</td>
<td>✔️</td>
<td>✔️</td>
<td>✔️</td>
<td>✔️</td>
<td>✔️</td>
</tr>
<tr>
<td>2</td>
<td>Similarities</td>
<td></td>
<td>✔️</td>
<td>✔️</td>
<td></td>
<td></td>
</tr>
<tr>
<td>3</td>
<td>Matrix Reasoning</td>
<td>✔️</td>
<td></td>
<td>✔️</td>
<td></td>
<td></td>
</tr>
<tr>
<td>4</td>
<td>Digit Span</td>
<td>✔️</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>5</td>
<td>Coding</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>6</td>
<td>Vocabulary</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>7</td>
<td>Figure Weights</td>
<td>✔️</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>
### WISC-V Complementary Subtests and Composites

<table>
<thead>
<tr>
<th></th>
<th></th>
<th><strong>NSI</strong></th>
<th><strong>STI</strong></th>
<th><strong>SRI</strong></th>
</tr>
</thead>
<tbody>
<tr>
<td>17</td>
<td>Naming Speed Literacy</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>18</td>
<td>Naming Speed Quantity</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>19</td>
<td>Immediate Symbol Translation</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>20</td>
<td>Delayed Symbol Translation</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>21</td>
<td>Recognition Symbol Translation</td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

**NSI** = Naming Speed  
**STI** = Symbol Translation  
**SRI** = Storage and Retrieval
PRIMARY INDEX SCORES

Verbal Comprehension Index

Similarities (VCI & FSIQ)

Vocabulary (VCI & FSIQ)
Similarities

• Verbal concept formation
• Abstract reasoning
• Involves:
  – Crystallized intelligence
  – Word knowledge
  – Cognitive flexibility
  – Auditory comprehension
  – Long-term memory
  – Associative and categorical thinking
  – Distinction between nonessential and essential features
  – Verbal expression

— and over-learned verbalisms in younger children
Similarities

• 23 Items
  – 7 retained from WISC-IV
  – 8 modified
  – 8 new
  – New Sample item
Similarities

Discontinue after 3 consecutive scores of 0

WISC-IV was after 5

• Starting points are different
  – Age 6-7: Sample, then start with item 1
  – Age 8-11: Sample, then start with item 5
  – Age 12-16: Sample, then start with item 8
Vocabulary

• Picture and verbal items
• Word knowledge
• Verbal concept formation
• Involves:
  – Crystallized intelligence
  – Fund of knowledge
  – Learning ability
  – Verbal expression
  – Long-term memory
  – Vocabulary development
Vocabulary

• 29 items
  – 14 new items
  – 15 retained items
• Discontinue after 3 consecutive scores of 0
  WISC-IV was after 5
• Starting points are different
  – Age 6-7: Item 1
  – Age 8-11: Item 5
  – Age 12-16: Item 9
Either can substitute for either Similarities or Vocabulary, **but only one substitution allowed in deriving FSIQ and only when truly necessary for invalid(ated) subtest.**
Visual Spatial Index

Block Design (VSI & FSIQ)

Visual Puzzles (VSI)
Block Design

• Ability to analyze and synthesize abstract visual stimuli

• Involves
  – Nonverbal concept formation and reasoning
  – Broad visual intelligence
  – Visual perception and organization
  – Simultaneous processing
  – Visual-motor coordination
  – Learning
  – Ability to separate figure-ground in visual stimuli
Block Design

• 13 Items
  – 5 retained
  – 8 new
    • Including item with an X shaped figure
Block Design

Discontinue after 2 consecutive scores of 0
WISC-IV was 3 consecutive scores of 0

Scoring

• Maximum Block Design Total

Block Design Total Raw Score
(Maximum = 58)
Process Scores

- Maximum Block Design No Time Bonus
- Maximum Block Design Partial Total
- Maximum Block Design Dimension Errors
- Maximum Block Design Rotation Errors

Block Design Scores:
- BDn (Max = 46)
- BDp (Max = 82)
- BDde (Max = 11)
- BDre (Max = 13)

Total Raw Score (Maximum = 58)
Maximum Block Design No Time Bonus (BDn)

– Score 2, 1, or 0 on items 1-3
– Score 4 if child solves design correctly within time limit, 0 if child does not – on items 4-13
Maximum Block Design Partial Total (BDp)

– Score is derived from the number of correctly placed blocks for each item.
– On the record form, circle the number of correctly placed blocks at the time limit in the gray Optional Partial Score column
– Award time-bonus points as appropriate
– To calculate the BDp raw score, add the circled scores
<p>| | | | |</p>
<table>
<thead>
<tr>
<th></th>
<th></th>
<th></th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td>0</td>
<td>1</td>
<td>2</td>
<td></td>
</tr>
<tr>
<td>3</td>
<td>4</td>
<td>5</td>
<td></td>
</tr>
<tr>
<td>6</td>
<td>7</td>
<td>8</td>
<td></td>
</tr>
<tr>
<td><strong>71-120</strong></td>
<td><strong>51-70</strong></td>
<td><strong>31-50</strong></td>
<td><strong>1-30</strong></td>
</tr>
<tr>
<td><strong>9</strong></td>
<td><strong>10</strong></td>
<td><strong>11</strong></td>
<td><strong>12</strong></td>
</tr>
</tbody>
</table>
Maximum Block Design Dimension Errors (BDde)

– Total number of constructions with dimension errors made at any time during the construction
– Dimension errors are not possible on items 1 and 13
– To calculate the BDde raw score, count the number of items with dimension errors
Maximum Block Design Rotation Errors (BDre)

– Total number of constructions with rotations of 30° or more at the time limit
– To calculate the Bdre raw score, count the number of items with rotation errors
Visual Puzzles

• New Subtest
• Adapted from the WAIS-IV
• Mental, non-motor construction ability
• Involves
  – Visual and spatial reasoning
  – Mental rotation
  – Visual working memory
  – Part-to-whole relationships
  – Analysis and synthesis of abstract visual stimuli
Visual Puzzles

• 29 items
• Starting Points:
  – Everyone gets the demonstration item and the sample item
  – Age 6-8: Item 1
  – Age 9-11: Item 5
  – Age 12-16: Item 8
• Discontinue after 3 consecutive scores of 0
• 30 second time limit for each item
Visual Puzzles

• Choose **three** pieces that go together to make the picture of the puzzle shown.

• If child chooses fewer, nag, **Choose three pieces to make the puzzle**, as often as needed.

• After 20 seconds, ask, **Do you have an answer?**

• Do **not** stop timing for this or other nagging.
Nope: Must be 3 pieces.
(Substitution)

(Visual Puzzles)

Visual Puzzles can substitute for Block Design in deriving the FSIQ, but only one substitution is allowed in deriving FSIQ and only when truly necessary for an invalid or invalidated subtest.
Fluid Reasoning Index

Matrix Reasoning (FRI & FSIQ)

Figure Weights (FRI & FSIQ)
Matrix Reasoning

• Fluid Intelligence
• Broad visual intelligence
• Classification and spatial ability
• Knowledge of part-to-whole relationships
• Simultaneous processing
• Involves
  — Attention to visual detail
  — Working memory
Matrix Reasoning

Discontinue after 3 consecutive scores of 0

WISC-IV was after 4

• Starting points are different
  – Everyone gets Sample Items A & B (one less sample item than on the WISC-IV)
  – Age 6-7: Item 1
  – Age 8-11: Item 5
  – Age 12-16: Item 9
Matrix Reasoning

- 32 Items
- 12 retained
- 20 new

Two types of Items

- Sample A
  - Matrix
  - 2x2 or 3x3 Visual Presentation
- Sample B
  - 1 x 6 row of boxes
Figure Weights

• Quantitative fluid reasoning and induction

• Involves
  – Working memory

• 34 Items
Figure Weights

• New Subtest
• Examinee views a scale with missing weight(s) and then selects the option that will keep the scale balanced
• Discontinue after 3 consecutive scores of 0
• Time limit:
  – Items 1-18 – 20 seconds
  – Items 19-34 – 30 seconds
If the child has not responded when only 10 seconds remain in the time limit, prompt him or her by asking, **Do you have an answer?** Provide this prompt when 10 seconds have elapsed on Items 1—18 and when 20 seconds have elapsed on Items 19—34. Do **not** stop timing to provide this prompt. (p. 163)
WAIS-IV

10

= 3

* = 3

= 9

* = 9

= 6

* = 6

= 10

= 5

= 5

= 6

= 6
Picture Concepts can substitute for either Matrix Reasoning or Figure Weights, and Arithmetic can substitute for Figure Weights, but only one substitution allowed in deriving FSIQ and only when truly necessary for an invalid(ated) subtest.
Working Memory Index

Digit Span

Picture Span
Digit Span

• Shifting from one task to another requires cognitive flexibility and mental alertness
• Forward
  – Auditory rehearsal and temporary storage in working memory
• Backward
  – Working memory
  – Transformation of information
  – Mental manipulation
Digit Span

• Sequencing
  – New
  – Adapted from WAIS-IV
  – Working memory
  – Mental manipulation
  – Increases the cognitive complexity of the subtest
  – Both sequencing and backward involve the re-sequencing of the information
Digit Span

• At least 9 items for each
• Items were revised to cut down on repetition of certain numbers
• Items were added to strengthen the ceiling
• Forward
  – 17 new trials, 1 retained
• Backward
  – 16 new trials, 2 retained
• Sequencing
  – 18 new trials
Digit Span

• 3 subsections
  – Forward
  – Backward
  – Sequencing

• Discontinue after scores of 0 on both trials of an item
Digit Span

• Process Scores
• Maximum Digit Span
  – Forward
  – Backward
  – Sequencing
• Maximum Longest Digit Span
  – Forward
  – Backward
  – Sequencing
Picture Span

• New Subtest
• The examinee views the visual stimuli with one or more pictures and then selects the pictures in the correct order from the response page
Picture Span

• Visual working memory
• Working memory capacity
• Involves
  – Attention
  – Visual processing
  – Visual immediate memory
  – Response inhibition
• 26 Items
Picture Span

• Discontinue after 3 consecutive scores of 0
• Expose the visual stimulus for the entire exposure time, even if examinee requests to move on
• Only expose visual stimulus one time
• Sample Item A - Item 3
  – Expose visual stimulus for 3 seconds
• Sample Item B – Item 26
  – Expose visual stimulus for 5 seconds
Picture Span

Scoring

• Score without looking at your paper: watch the child!

• Items 1-3
  – Correct – 1 point

• Items 4-26
  – All items in correct sequence – 2 points
  – All items in incorrect sequence – 1 point

• Reverse order – 1 point if correct, then repeat (for no credit) with admonition only once.
Picture Span

• Process Scores

• Maximum Longest Picture Span Stimuli (LPSs)
  – The number of pictures on the visual stimulus page for the last item that received a perfect score

• Maximum Longest Picture Span Response (LPSr)
  – The number of pictures on the response page for the last item that received a perfect score
(Working Memory Secondary Subtest)

(Letter-Number Sequencing)

Letter-Number Sequencing or Picture Span can substitute for Digit Span in the FSIQ, but only one substitution allowed in deriving FSIQ and only when truly necessary for invalid(ated) subtest.
Processing Speed Index

Coding (PSI & FSIQ)
Symbol Search (PSI)
Coding

• Processing Speed
• Involves:
  – Short-term visual memory
  – Procedural and incidental learning ability
  – Psychomotor speed
  – Visual perception
  – Visual-motor coordination
  – Visual scanning ability
  – Cognitive flexibility
  – Attention
  – Concentration
  – Motivation
Coding

• More equitable item difficulty
• Presentation is more balanced – occur twice in each row
• Pairs of rotated figures are eliminated
• Clarifies degree of acceptable rotation
• Instructions are simplified
Coding

• Coding A
  • 5 Shapes/Symbols
    – Shapes:
      • 3 Retained
      • 2 Modified
    – Symbols:
      • 4 New
      • 1 Modified

• Coding B
  – 9 symbols
    • 6 New
    • 3 Modified
Coding

• New marks for the numbers

• Process Scores:
  – Maximum Coding Rotation Errors (CDre)
    • Add the number of all the items that are rotated ≥90°
Symbol Search

- Visual Perceptual and Decision Making Speed
- Involves
  - Short-term visual memory
  - Visual-motor coordination
  - Inhibitory control
  - Visual discrimination
  - Psychomotor speed
  - Sustained attention
  - Concentration
Symbol Search

• Two new types of errors
• Set errors
  – Examinee marks an incorrect, but perceptually similar symbol
• Rotation errors
  – Examinee marks a target symbol that is rotated 90, 180, or 270 degrees
Symbol Search and Destroy

• Number of items on the page is decreased
• Symbols are slightly larger
• Form A:
  – 40 New Items
• Form B:
  – 60 New Items
Symbol Search
New Rules

• If “yes”
  – Put a mark through the symbol

• If “no”
  – Put a mark through the “no” box
(Processing Speed Secondary Subtest)

(Cancellation)

Cancellation or Symbol Search can substitute for Coding in deriving the FSIQ, but only one substitution allowed in deriving FSIQ and only when truly necessary for invalid(ated) subtest.
The scoring template for Cancellation is still translucent and a little flimsy. Judith Newcomb (personal communication, May 16, 2003) recommends copying each half of the 11" x 14" template (with a sheet of white paper between the halves) onto overhead transparencies on a plain paper copier. The resulting transparent templates are easier to use and the original can be carefully preserved.
Ancillary Index Scores

- Quantitative Reasoning (QRI)
- Auditory Working Memory (AWMI)
- Non Verbal (NVI)
- General Ability (GAI)
- Cognitive Proficiency (CPI)
Complementary Index Scores

• Naming Speed Index (NSI)
• Symbol Translation Index (STI)
• Storage and Retrieval Index (SRI)
Quantitative Reasoning Index (QRI)

• Quantitative reasoning skills
• Assists in predicting reading and math achievement

Subtests:
Figure Weights and Arithmetic
Auditory Working Memory Index (AWMI)

• Purer measure of auditory working memory
• Complements WMI

Subtests:
Digit Span
Letter-Number Sequencing
Nonverbal Index (NVI)

• Global measure of intellectual ability that does not require expressive language responses.
• May be useful with children with language-related, ELL, deaf or hard of hearing, or autism spectrum issues.
Nonverbal Index (NVI)

Subtests

Block Design  Figure Weights
Visual Puzzles  Picture Span
Matrix Reasoning  Coding
General Ability Index (GAI)

- Estimate of general intellectual ability that is not as dependent on working memory and processing speed

Subtests:
- Similarities
- Vocabulary
- Block Design
- Matrix Reasoning
- Figure Weights

WISC-V Trademark and Copyright NCS Pearson
Cognitive Proficiency Index (CPI)

- Efficiency with which cognitive information is processed

Subtests:
- Digit Span
- Picture Span
- Coding
- Symbol Search
COMPLEMENTARY INDEX SCORES

Naming Speed Index (NSI)

• Naming facility
• Related to achievement variables and sensitive to specific learning disabilities in reading, mathematics, and written expression

Subtests:
Naming Speed Literacy
Naming Speed Quantity
Naming Speed Literacy

• RAN or NVRANEAN

• Sample and 2 trials for each of 3 items.

• Age 6: start with Item 1: Color-Object Naming (e.g., "chartreuse wombat") end after Item 2.

• Age 7-8: start with Item 2: Size-Color-Object Naming (e.g., "massive chartreuse wombat").

• Age 9-16: start with Letter-Number Naming (e.g., 8 B R 3 7 H 6 P M 2).

• Start based on chronological age in all cases.
Naming Speed Literacy

• 300 seconds (5 minutes) per trial!
• Go in order and don't skip any.
• Go as fast as you can without screwing up.
• Use your finger to keep your place (ages 6 -8).
• Restart the child at the correct next item if the child skips a row or starts to go right to left.
• If the child misnames 2 consecutive elements in one row, point to the 2nd one and say, **Keep going from here.**
• Do **not** stop timing when prompting/correcting.
Naming Speed Quantity

• Sample and 2 **trials** for each of 2 **items**.
• 300 seconds (5 minutes) per trial!
• Name the number of boxes in each square.
• Age 6: give only Item 1 (2 trials).
• Age 7-16: Item 2 (2 trials).
• Use only chronological age to select item.
• If the child misnames 2 consecutive elements in one row, point to the 2nd one and say, **Keep going from here.**
Naming Speed Quantity

• Go in order and don't skip any.
• Go as fast as you can without screwing up.
• Use your finger to keep your place (ages 6 -8).
• Restart the child at the correct next item if the child skips a row or starts to go right to left.
• Do **not** stop timing when prompting/correcting.
Symbol Translation Index (STI)

- Visual-verbal associative memory
- Associated with reading decoding skills, word reading accuracy and fluency, text reading and reading comprehension, math calculation skills, and math reasoning.
Symbol Translation Index (STI)

Subtests:
Immediate Symbol Translation
Delayed Symbol Translation
Recognition Symbol Translation
Immediate Symbol Translation

• 34 symbols including 5 modifiers (e.g., -ing)
• Symbols are introduced in pairs (plus reviews of previous pairs on Items 1-10).
• 5 seconds' silence → Go on to the next one.
• Multiple responses: score intended one or point to first symbol in the string and say, Start again from here.
• All start with Item 1. Follow discontinue rules.
Immediate Symbol Translation

• Items 1-3: second trial if first is less than perfect. Score only the last completed trial.
• Provide only prescribed teaching.
• Translations must be precise in tense, number, and suffixes.
• Word form errors are OK if they intend the correct grammatical form ("sleeped" = slept).
• Insertions are not counted.
Look at these. This one means **WOMBAT** and this one means **THAT**. Now you say them after me. **WOMBAT . . . THAT.**
Start here and tell me what each one means.
I stared at the record form and began to cry.

Stop Time

_______ : _______

Hr. Min.

Cumulative Raw Score for Items 1-16. DISCONTINUE if score is ≤ 29

8, not 10. The colored boxes do not count.
Delayed Symbol Translation

• 20-30 minutes after Immediate Symbol Translation
• 5 seconds' silence → **Go on to the next one.**
• Multiple responses: score intended one or point to first symbol in the string and say, **Start again from here.**
• Same discontinue point as before. Translations must be precise in tense, number, and suffixes.
• Word form errors are OK if they intend the correct grammatical form ("slepped" = *slept*).
• Insertions are not counted.
Recognition Symbol Translation

• Immediately after Delayed or else:
• 20-30 minutes after Immediate Symbol Translation.
• Presented one symbol at a time.
• 5 seconds' silence \(\rightarrow\) **Go on to the next one.**
• Multiple responses: score intended one or say, **You said ___ and ___. Which one did you mean?**
• Same discontinue point as before. Translations must be precise in tense, number, and suffixes.
Storage Retrieval Index (SRI)

- Long-term storage and retrieval accuracy and fluency

Subtests:
  - Naming Speed Index
  - Symbol Translation Index
References

