A Family Friendly Guide to Understanding Psychological Test Scores and Results

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• Show us what you know!
• The Bell Curve
• Defining Impairment & Strengths
• Standardized Scores Over Time

• Factors that Impact Performance
• Practice IEP Meeting
• Show off what you learned!
• Resources
<table>
<thead>
<tr>
<th>Standard Score</th>
<th>40</th>
<th>55</th>
<th>70</th>
<th>85</th>
<th>100</th>
<th>115</th>
<th>130</th>
<th>145</th>
<th>160</th>
</tr>
</thead>
<tbody>
<tr>
<td>Scaled Score</td>
<td>1</td>
<td>4</td>
<td>7</td>
<td>10</td>
<td>13</td>
<td>16</td>
<td>19</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Standard Deviation</td>
<td>-4σ</td>
<td>-3σ</td>
<td>-2σ</td>
<td>-1σ</td>
<td>0σ</td>
<td>+1σ</td>
<td>+2σ</td>
<td>+3σ</td>
<td>+4σ</td>
</tr>
<tr>
<td>Percentile</td>
<td>0.1%</td>
<td>2.3%</td>
<td>15.9%</td>
<td>50%</td>
<td>84.1%</td>
<td>97.7%</td>
<td>99.8%</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Z-Score</td>
<td>-4.0</td>
<td>-3.0</td>
<td>-2.0</td>
<td>-1.0</td>
<td>0</td>
<td>+1.0</td>
<td>+2.0</td>
<td>+3.0</td>
<td>+4.0</td>
</tr>
<tr>
<td>T-Score</td>
<td>20</td>
<td>30</td>
<td>40</td>
<td>50</td>
<td>60</td>
<td>70</td>
<td>80</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

Broad Average Range
Standard Score:
Mean Average=100
Scaled Score:
Mean Average=10
Z-Score:
Mean Average=0
Percentile:
Midpoint=50\%ile
T-Score:
Mean Average=50
### Average ("Mean")

<table>
<thead>
<tr>
<th>Score Type</th>
<th>Value</th>
</tr>
</thead>
<tbody>
<tr>
<td>Standard Score (IQ)</td>
<td>100</td>
</tr>
<tr>
<td>Scaled Score</td>
<td>10</td>
</tr>
<tr>
<td>T-Score</td>
<td>50</td>
</tr>
<tr>
<td>Z-Score</td>
<td>0</td>
</tr>
</tbody>
</table>
Standard Deviations
**Standard Score:**
Mean Average=100
Standard Deviation=15
Standard Score:
Mean Average=100
Standard Deviation=15

68%
Scaled Score:
Mean Average=10
Standard Deviation=3

68%
Z-Score:
Mean Average=0
Standard Deviation=1
Percentile:
Percentile Midpoint=50%ile
Standard Deviation=?
T-Score:
Mean Average=50
Standard Deviation=10
### Table of Standard Scores

<table>
<thead>
<tr>
<th>Score Type</th>
<th>Average (&quot;Mean&quot;)</th>
<th>Standard Deviation</th>
</tr>
</thead>
<tbody>
<tr>
<td>Standard Score (IQ)</td>
<td>100</td>
<td>15</td>
</tr>
<tr>
<td>Scaled Score</td>
<td>10</td>
<td>3</td>
</tr>
<tr>
<td>T-Score</td>
<td>50</td>
<td>10</td>
</tr>
<tr>
<td>Z-Score</td>
<td>0</td>
<td>1</td>
</tr>
</tbody>
</table>

**Wait!**

**What kind of score is that?**
Standard Score:
Mean Average=100
Scaled Score:
Mean Average=10
Z-Score:
Mean Average=0

-2
Percentile:
Midpoint=50%ile

68%
96%

2.3 %ile
T-Score:
Mean Average=50
How do you define strengths and impairments?

Absolute:
• 1 standard deviation below the mean?
• 1.5 standard deviations below the mean?
• 2 standard deviations below the mean?

Relative:
• 20 standard score point discrepancy between scores?
Typical or Unusual?
Standard Score=110
Scaled Score=8
Z-Score = -2.5
Percentile = 75th %ile
T-Score=45
Everybody got it?
Questions?
Let’s go to an IEP meeting!
WISC-5

Full Scale IQ (FSIQ)
Verbal Comp (VCI)
Visual Spatial (VSI)
Fluid Reasoning (FRI)
Working Memory (WMI)
Processing Speed (PSI)
Grooved Pegboard

Pegs: Right Hand
Pegs: Left Hand
ChAMP

List
List Delay
List Recognition
Objects
Objects Delay
NEPSY-2

Word Generation: Category
Word Generation: Letter
Depression
Anxiety

Sometimes a high score means there is a problem...
Now you are ready to understand what is going on at an IEP meeting...

But there’s a few more things you need to know!
• Important Questions to bring to an IEP meeting or a feedback session
  – What are my child’s strengths and weaknesses?
  – What are the diagnoses and how did you get there?
  – How do these test scores inform recommendations / interventions?
  – What do these scores mean for my child in the classroom or real world settings?
  – Do you think this testing is valid / true representation of skills?
  – How does this compare to previous testing?
What can negatively impact test scores (besides ability...)

• History
• Behavior & Motivation
• Fatigue

• Medications
• Emotional Functioning
• Functional Impairments
Why do we do psychological assessments?

- Getting needs met in school (IEP meetings)
  - Supports and accommodations
  - Placements
  - Therapies
- Outside therapies or interventions
- Access services
- Care coordination
- Tracking of skills over time
  - Document progress
  - Monitor for declines
- To understand strengths and weaknesses
  - How to best learn
  - Vocational options
Kinds of Assessments

- Psychological
  - Clinical Psychologist
  - Questions about cognitive skills and psychological diagnoses

- Educational
  - School psychologist
  - Questions about academic skills

- Psychoeducational
  - Clinical or school psychologist
  - Questions about cognitive skills, psychological diagnoses, and academic skills

- Neuropsychological
  - Neuropsychologist
  - Questions about all of these things in children with medical conditions

- Multidisciplinary
  - Physical Therapy (PT)/Occupational Therapy (OT)/Speech and Language Therapy

- Psychiatric
• PAR Toolkit app
• National Center for Learning Disabilities (NCLD) Handout
  – https://www.ncld.org/
  – Endrew F. Advocacy Toolkit:
Kahoot.it
Thank you!!!
WISC-5

Full Scale IQ (FSIQ)
Verbal Comp (VCI)
Visual Spatial (VSI)
Fluid Reasoning (FRI)
Working Memory (WMI)
Processing Speed (PSI)
Word Generation: Letter
Word Generation: Semantic
Naming
Pegs: Left
Pegs: Right