

PSYCHOLOGY

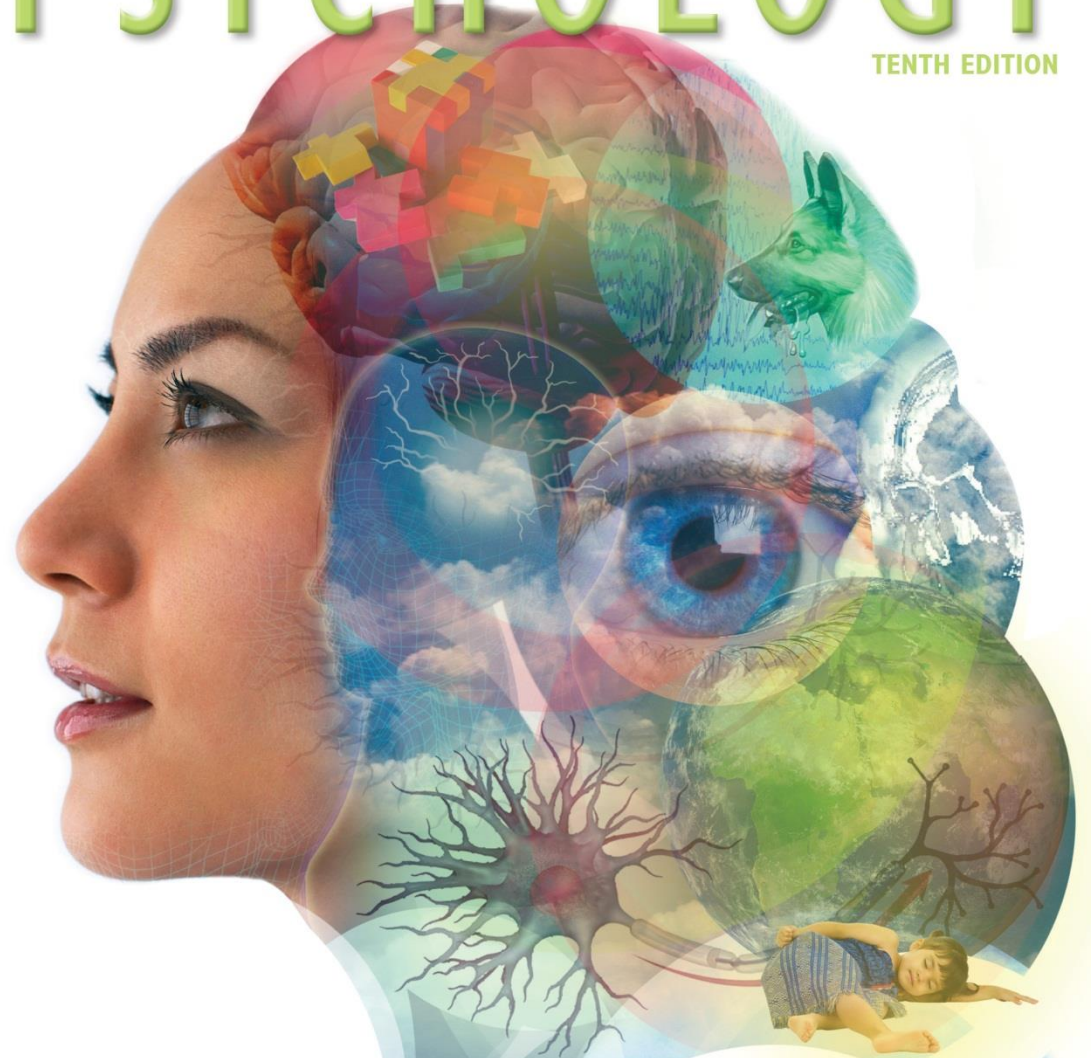
TENTH EDITION

Intelligence

Adapted from
PowerPoint
Presentation
by Asim Tarar

THE COLLEGE OF
WOOSTER

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David G. Myers

David Wechsler's Tests: Intelligence PLUS

The **Wechsler Adult Intelligence Scale (WAIS)** and the **Wechsler Intelligence Scale for Children (WISC)** measure “*g*”/IQ and have subscores for:

verbal comprehension.
processing speed.
perceptual organization.
working memory.






Wechsler Intelligence Scale

- Wechsler Intelligence Scale for Children-Third Edition (WISC-III)
 - Used with children 6 to 16
- Wechsler Adult Intelligence Scale-Third Edition (WAIS-III)
 - Used with people 17 and older

WAIS

WAIS measures overall intelligence and 11 other aspects related to intelligence that are designed to assess clinical and educational problems.

<p>VERBAL</p> <p>General Information What day of the year is Independence Day?</p> <p>Similarities In what way are <i>wool</i> and <i>cotton</i> alike?</p> <p>Arithmetic Reasoning If eggs cost 60 cents a dozen, what does 1 egg cost?</p> <p>Vocabulary Tell me the meaning of corrupt.</p> <p>Comprehension Why do people buy fire insurance?</p> <p>Digit Span Listen carefully, and when I am through, say the numbers right after me.</p> <p style="text-align: center;">7 3 4 1 8 6</p> <p>Now I am going to say some more numbers, but I want you to say them backward.</p> <p style="text-align: center;">3 8 4 1 6</p> <p>PERFORMANCE</p> <p>Picture Completion I am going to show you a picture with an important part missing. Tell me what is missing.</p> <p style="text-align: center;">'85</p> <table style="margin-left: auto; margin-right: auto;"> <tr> <td>SUN</td><td>MON</td><td>TUE</td><td>WED</td><td>THU</td><td>FR</td><td>SAT</td> </tr> <tr> <td>1</td><td>2</td><td>3</td><td>4</td><td>5</td><td>6</td><td>7</td> </tr> <tr> <td>8</td><td>9</td><td>10</td><td>11</td><td>12</td><td>13</td><td>14</td> </tr> <tr> <td>15</td><td>16</td><td>17</td><td>18</td><td>19</td><td>20</td><td>21</td> </tr> <tr> <td>22</td><td>23</td><td>24</td><td>25</td><td>26</td><td>27</td><td>28</td> </tr> <tr> <td>29</td><td>30</td><td></td><td></td><td></td><td></td><td></td> </tr> </table>	SUN	MON	TUE	WED	THU	FR	SAT	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24	25	26	27	28	29	30						<p>Picture Arrangement The pictures below tell a story. Put them in the right order to tell the story.</p>  <p>Block Design Using the four blocks, make one just like this.</p>  <p>Object Assembly If these pieces are put together correctly, they will make something. Go ahead and put them together as quickly as you can.</p>  <p>Digit-Symbol Substitution</p> <p>Code</p> <table style="margin-left: auto; margin-right: auto;"> <tr> <td>△</td><td>○</td><td>∇</td><td>×</td><td>◇</td> </tr> <tr> <td>1</td><td>2</td><td>3</td><td>4</td><td>5</td> </tr> </table> <p>Test</p> <table style="margin-left: auto; margin-right: auto;"> <tr> <td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td> </tr> <tr> <td>1</td><td>5</td><td>4</td><td>2</td><td>1</td><td>3</td><td>5</td><td>4</td><td>1</td><td>5</td> </tr> </table>	△	○	∇	×	◇	1	2	3	4	5											1	5	4	2	1	3	5	4	1	5
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Principles of Test Construction

For a psychological test to be acceptable it must fulfill the following three criteria:

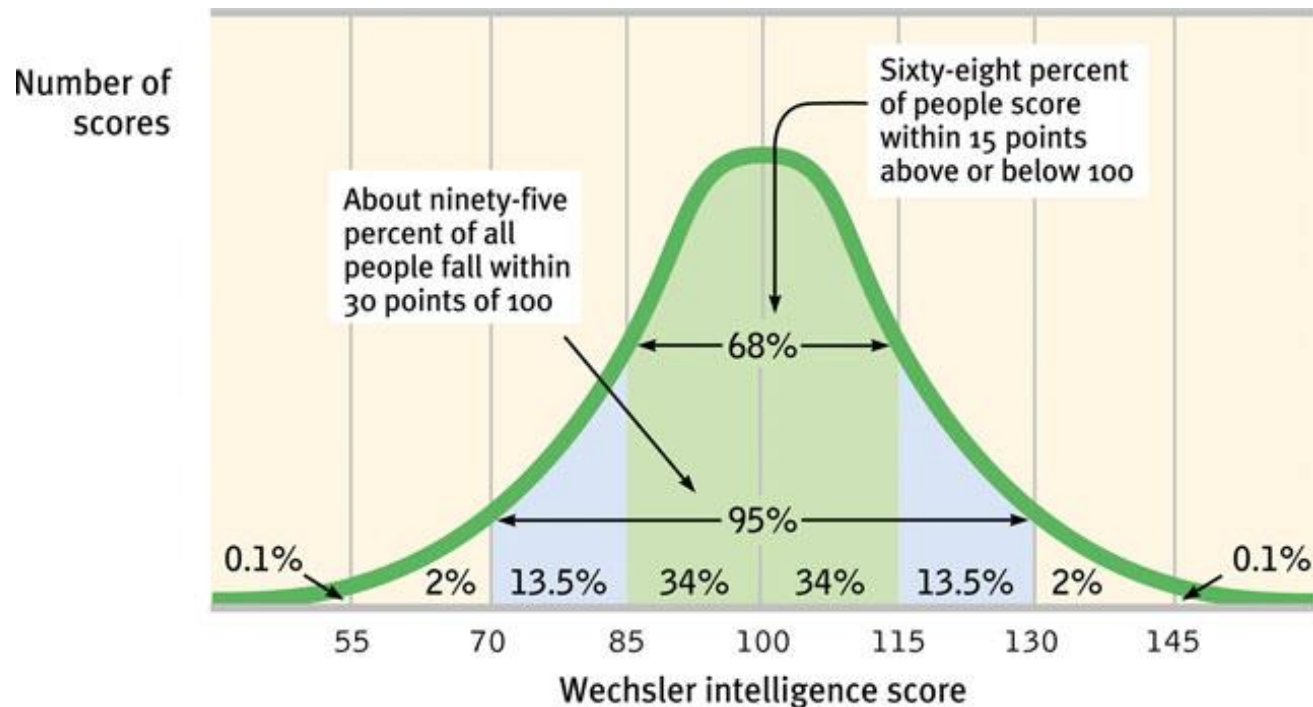
1. Standardization
2. Reliability
3. Validity

Standardization

Standardizing a test involves administering the test to a representative sample of future test takers in order to establish a basis for meaningful comparison.

Normal Curve

Standardized tests establish a normal distribution of scores on a tested population in a bell-shaped pattern called the **normal curve**.



Reliability

A test is *reliable* when it yields consistent results. To establish reliability researchers establish different procedures:

1. **Split-half Reliability:** Dividing the test into two equal halves and assessing how consistent the scores are.
2. **Reliability using different tests:** Using different forms of the test to measure consistency between them.
3. **Test-Retest Reliability:** Using the same test on two occasions to measure consistency.

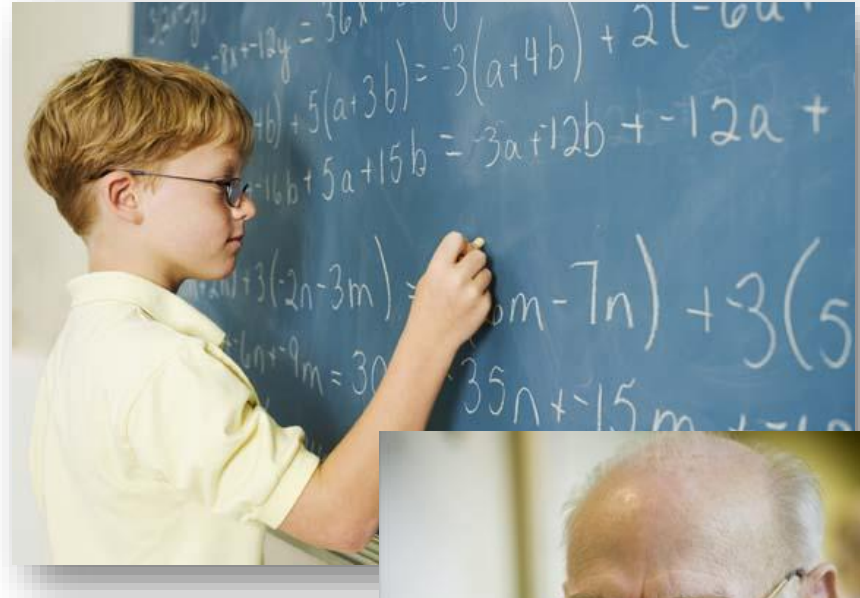
Validity

Reliability of a test does not ensure validity. Validity of a test refers to what the test is supposed to measure or predict.

1. **Content Validity:** Refers to the extent a test measures a particular behavior or trait.
2. **Predictive Validity:** Refers to the function of a test in predicting a particular behavior or trait.

Fluid and Crystallized Intelligence

Fluid intelligence *refers to the ability to think quickly and abstractly.*



Crystallized intelligence *refers to accumulated wisdom, knowledge, expertise, and vocabulary*



Male-Female Ability Differences



- Girls tend to be better at spelling, locating objects, and detecting emotions.
- Girls tend to be more verbally fluent, and more sensitive to touch, taste, and color.
- Boys tend to be better at handling spatial reasoning and complex math problems.
- It is a myth that boys generally do better in math than girls. Girls do at least as well as boys in overall math performance and especially in math computation.

Cognitive Styles

- Different ways to perceiving and organizing information from the world around them.
- For example: Some Individuals respond very quickly in most situations, others are more slower to respond even though both types may be equally knowledgeable about the task.
- There are two types of Cognitive Styles
 - I. Field Dependence and Field Independence
 - II. Impulsive and Reflective Cognitive Styles

Field Dependence and Field Independence

- Field Dependence: Cognitive style in which patterns are perceived as whole.
- They have difficulty focusing on one aspect of situation, picking out important details, analyzing a pattern into different parts, or monitoring their use of strategies to solve problems.
- They tend to work well in groups, have a good memory for social information, and prefer subject such as literature and history.

Field Dependence and Field Independence

- Field Independence: Cognitive style in which they perceive separate parts of a total pattern and are able to analyze a pattern according to its components.
- They do well in math and science, where their analytical abilities pay off.
- They are more likely to monitor their own information processing

Impulsive and Reflective Cognitive Styles

- Impulsive: Characterized by cognitive style of responding quickly but often inaccurately.
- Reflective Cognitive Styles: Responding slowly, carefully, and accurately.

Thank You