

Understanding Intellectual Disability

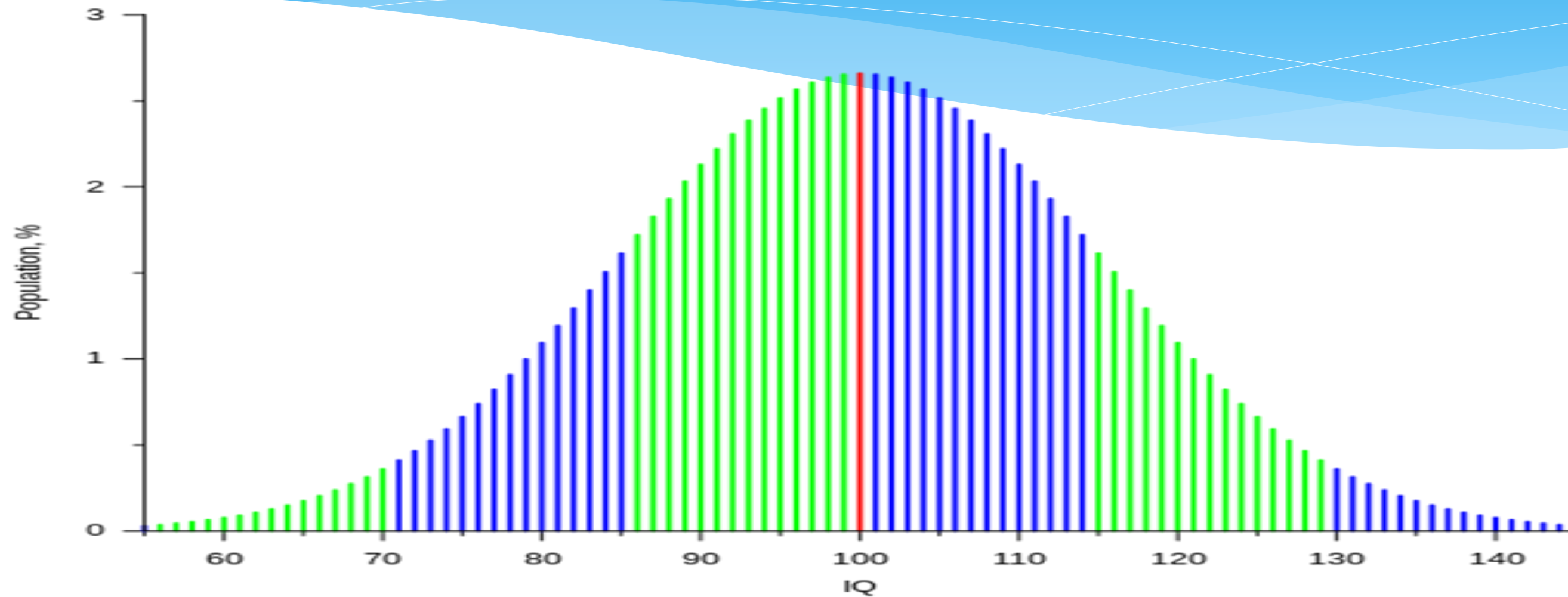
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General Intellectual Functioning

- ❖ **Intelligence: A broad sense of an individual's capacity to process information and solve problems.**
- ❖ **Intelligence Quotient (IQ):**
 - **A way to operationalize intelligence**
 - **IQ Score is a ratio of test performance to chronological age**
 - **What is measured by IQ testing does not always encompass all of one's intelligence**
- ❖ **Multiple Intelligences (Gardner): linguistic, mathematical, spatial, emotional, artistic, interpersonal, etc.**

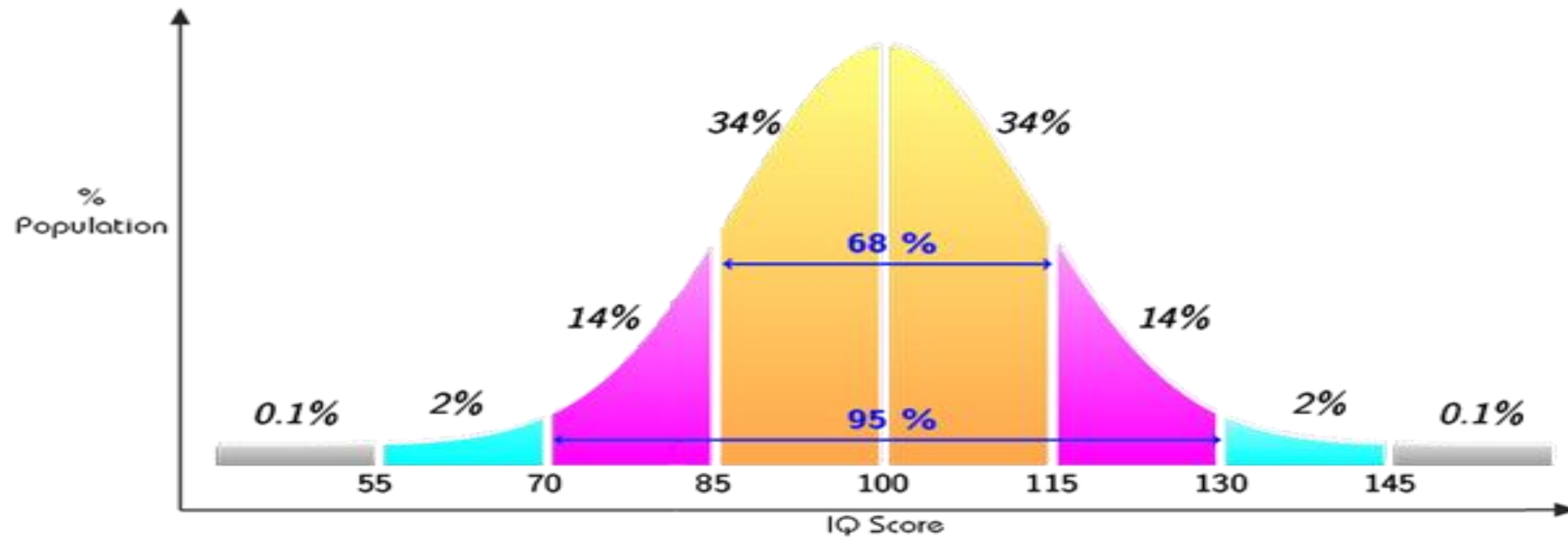
General Intellectual Functioning



- *Average IQ is 100 with a standard deviation of 15 points*

General Intellectual Functioning

IQ Score Distribution



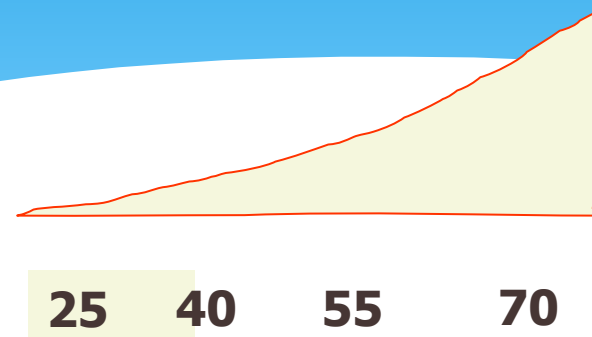
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Percentile Rank

100

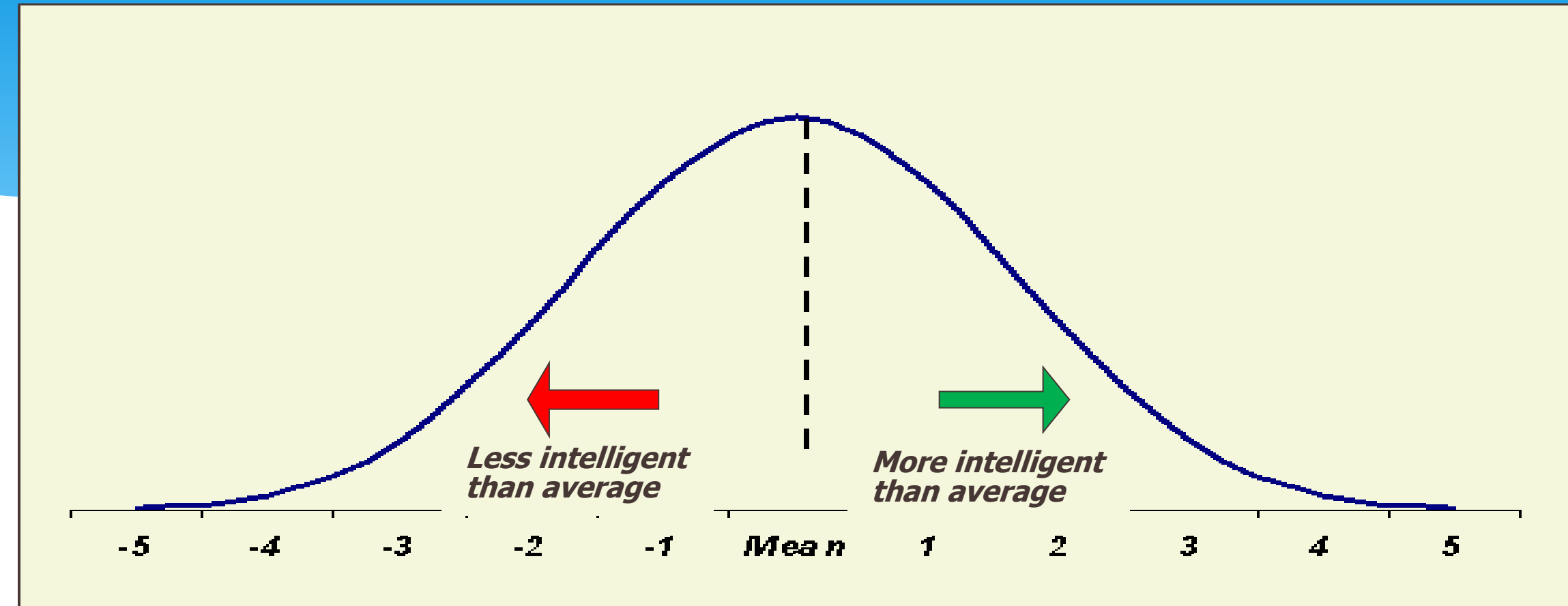
Intellectual Disability falls in the 2nd Percentile

Understanding Intellectual Disability



Degrees of Severity

- Mild 85%
- Moderate 10%
- Severe 3%
- Profound 2%



- *I/DD is noted to have over 250 syndromal (25%) and non-syndromal causes (75%).*
- *DSM-5: Intellectual Developmental Disorder (formerly mental retardation): Intellectual and adaptive deficits (FSIQ= 70 with a standard error of measurement of 5 points) with onset during the developmental period that occurs between birth to 18 years old.*
- Connecticut General Statute Section §17a-210b; Subsection 1-1g is the law that guides DDS ID eligibility criteria: 1) A significant limitation in intellectual functioning (a valid FSIQ of 69 or below) and 2) deficits in adaptive behavior (existing concurrently) that 3) originated during the developmental period before eighteen years of age.

Intellectual Functioning

Full-Scale Score versus Index Scores

Full Scale IQ is the total score that summarizes performance across multiple cognitive abilities.

When unusual variability is observed in the subtests, it is most useful to examine the index scores.

Intellectual Functioning Indexes

Verbal Comprehension:

- **General knowledge and reasoning skills. Related to formal and informal education.**
- **Language is central our ability to label, organize and manage our internal experiences and the external environment.**
- **Difficulty putting feelings and needs into words makes individuals prone to frustration and depression.**

Perceptual Organization:

- **Visual-spatial skills.**
- **Ability to create solutions, especially in novel situations.**

Intellectual Functioning Indexes

Working Memory:

- **In-the-moment reasoning tied to attention, concentration, and short-term memory.**
- **Important to learning, flexibility, planning, and self-monitoring.**
- **Sensitive to anxiety and depression.**
- **Related to trauma responses and anger management**

Processing Speed:

- **Ability to work quickly and efficiently.**
- **Sensitive to motivation and persistence.**
- **PS may negatively effect overall cognitive functioning.**

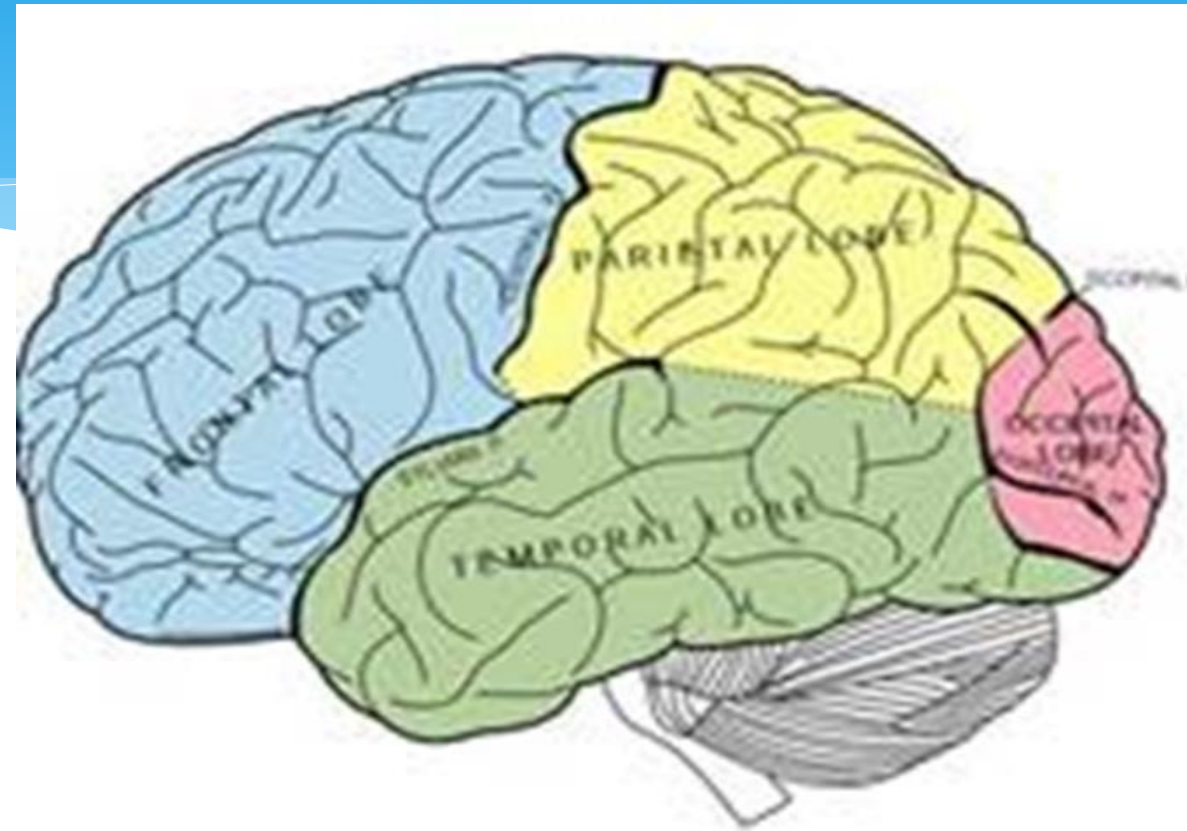
General Intellectual Functioning

The best approach is using assessments to inform our interventions, as well as building on cognitive strengths and minimizing weaknesses.

For example, if someone has visual-spatial strengths and verbal limitations, we might want to provide information using pictures, signs, and gestures, rather than words.

Concerns about diagnostic overshadowing

Brain Regions



The brain has **three** main parts:

- **Brainstem** that controls vital physical functions and survival responses.
- **Limbic system** that governs emotions. Key areas are the amygdala and the hippocampus. The “low road.”
- **Frontal lobes** for higher-order thinking and executive functions: These include a sense of time and context, planning, inhibiting and initiating action, self-monitoring, and empathic understanding. The “high road.”

Adaptive Functioning

- ❖ **Based on performance of daily activities at a given age. That is, understanding an individual's functioning through a “developmental lens” with age-equivalents.**
- ❖ **Refers to how effectively people cope with common life demands across multiple settings.**
- ❖ **Domains include Practical, Conceptual, and Social skills.**
- ❖ **Measures include the Vineland Scales and the BASC.**
- ❖ **Specific areas include the following:**
 - Health (e.g., safety awareness, scheduling appointments)**
 - Self-care (e.g., hygiene and grooming)**
 - Expressive and Receptive Communication**
 - Social and Community Activities**
 - Independent living skills (e.g. meal preparation, housekeeping)**
 - Vocational abilities**
 - Self-direction**