

# BEYOND THE SCORE: Explaining the IQ Score: Implications for SLD and ID

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## Session Description

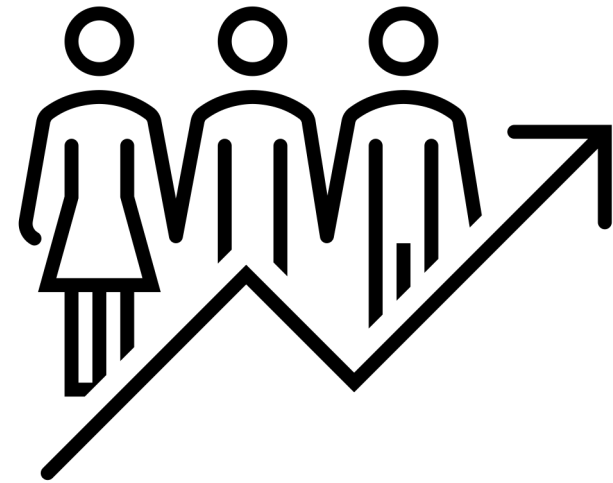
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- Full Scale IQ interpretation continue to perplex examiners when it comes to discriminating between an SLD or IDD. This session will address the policy implications and publisher interpretation regarding global scores such as the FSIQ or General Intellectual Ability (GIA) score. Case studies will be used to answer all the questions you are afraid to ask.



# Issues

- According to TEA:
  - We have identified 106K kids in the last 4 years, more than 28 states total SPED population
  - Makes- up half the national growth (218,492)
  - Texas has grown over 20% in students served since 17/18; 13 states decreased their numbers
  - Texas school population has only increased .5% (half of a percent!) AU #3



# Issues


- Child Find Test
- Pressure to qualify is immense, conformation bias is real.
- Profession in Crisis(Stephens, et al. 2023)
  - Increased workloads
  - Recruitment and training challenges
  - 75% of respondents report important information missing in referral packets resulting in hours of additional data collection per referral (36%-2 hours, 20%-3, 12%-4 hours; 9% 5 hours, 7% don't have any time to get it)
  - Structural deficiencies –highest trained are used a last resort





# Specific Learning Disability (SLD) vs Intellectual Disability (ID)

- “Intellectual Quotient” vs “Intellectual Development”
- “Global score” vs “pattern of strengths and weakness”
- “functional academics” vs “state standards”
- “communication” vs “language”
- “adaptive behavior” vs “relevant behavior”
- Must adversely affects the child’s educational performance



Criteria TX  
(See Legal  
Framework)

**Criteria:**

The child may be considered to be a child with intellectual disabilities if:

- When given a standardized, individually administered test of cognitive ability, the child demonstrates significantly subaverage general intellectual functioning in which the overall test score is at least two standard deviations below the mean, when taking into consideration the standard error of measurement of the test;
- The child demonstrates concurrent deficits in at least two of the following areas of adaptive behavior:
  - Communication;
  - Self-care;
  - Home living;
  - Social and interpersonal skills;
  - Use of community resources;
  - Self-direction;
  - Functional academic skills;
  - Work;
  - Leisure;
  - Health; and
  - Safety;
- The child's deficits are manifested during the developmental period; and
- By reason of the intellectual disabilities, the child needs special education and related services.

# Deconstructing the Definition

Significantly  
Sub-average,  
Standard Score  
of ~70

SEM=Standard  
error of  
measure

- WJIV-p. 279 Table C-1
- WISC V-P 61, Table 4.4

Adaptive  
Behavior  
Deficits ~1.5-2.

- Texas has no cut-offs
- Multiple raters must be used for formal assessment
- Informal data must corroborate





# Measuring Intelligence: What is it?

- [Sternberg Theory](#)
- [CHC Theory](#)
- WISC V (Let's look at manual)
- From APA Dictionary: *n.* the ability to derive information, learn from experience, adapt to the environment, understand, and correctly utilize thought and reason

# Intelligence (ID) vs Intellectual Development (SLD)

## **IQ**

- Static
- More concerned with “cognitive” aspects
- Traditional View (GC/GF)
- Traditional view of prediction
- Relatively few tests used to determine IQ

## **Intellectual Development**

- Dynamic
- More concerned of what influences cognition
- Contemporary View (CHC)
- Concerned with understanding and explaining
- More tests and more domains



# Testing and Interpretation

## **WJ IV**

- 1. Oral Vocabulary
- 2. Number Series
- 3. Verbal Attention
- 4. Letter-Pattern Matching
- 5. Phonological Processing
- 6. Story Recall
- 7. Visualization

## **WISC-V**

- 1. Block Design
- 2. Similarities
- 3. Matrix Reasoning
- 4. Digit Span
- 5. Coding
- 6. Vocabulary
- 7. Figure Weights

## Full Scale IQ (and Other Global Scores)

- Must be interpreted by comparing it to the tests that were given and anchored to real data. From WISC

### Step 1. Report and Describe the FSIQ

The FSIQ is the most reliable score and has traditionally been the first score to be considered in profile interpretation. It is derived from a sum of 7 subtest scaled scores. The FSIQ is usually considered the score that is most representative of general intellectual functioning (g).

The FSIQ is best interpreted by considering the primary index scores and examining differences between the primary index scores and other scores. The constructs measured by the primary index scores contribute to general intelligence in important ways. Analysis of these scores is recommended as the principal level of clinical interpretation, especially in cases with considerable variability across the primary index and/or primary subtest scores (Weiss, Saklofske, Prifitera, & Holdnack, 2006).

For each available primary index score, a comparison can be made to an estimate of overall performance (i.e., the MIS or the FSIQ), and pairwise comparisons can be made between primary index scores (e.g., VCI and FRI). Variability in subtest scaled scores can offer additional information that is relevant to FSIQ interpretation. Comparisons of subtest scaled scores with an estimate of overall subtest-level performance (i.e., the MSS-P or MSS-F), pairwise comparisons between the subtest scaled scores (e.g., Similarities and Vocabulary), and subtest scatter analysis may provide more information relevant to interpretation. See Flanagan and Kaufman (2009) and Sattler (2008a) for additional details regarding consideration of subtest scatter in the interpretation of composite scores.

# Manual Digs and Reports

- Special Studies WISC-V (p117) and WJ-IV (p213)
- NEPSY (p119)
- WIAT 4 (p50)
- KTEA (p84)
- Interpretation of the FSIQ (p. 18 WJ) (p. 157 WISCV)






# Adaptive Behavior Big Idea's

- Adaptive behavior (AB) is a manifestation of intelligence
- IQ and AB do not have a perfect correlation, .51 (Alexander & Reynolds, 2020)
- Be skeptical when “communication’ and “functional academics” are your only low scores.
- Adaptive Behavior and Cultural Considerations
- Testing Problems-limitation of rating scales
- Adaptive behavior is not “hidden” and deficits should not be discovered” during evaluation (will clarify)





Adaptive Behavior:  
Defined (AAID)

<https://www.aaid.org/intellectual-disability/definition/adaptive-behavior>

## What is Adaptive Behavior?

Adaptive behavior is the collection of **conceptual, social, and practical skills** that all people learn in order to function in their daily lives:

- Conceptual skills: literacy; self-direction; and concepts of number, money, and time
- Social skills: interpersonal skills, social responsibility, self-esteem, gullibility, naïveté (i.e., wariness), social problem solving, following rules, obeying laws, and avoiding being victimized
- Practical skills: activities of daily living (personal care), occupational skills, use of money, safety, health care, travel/transportation, schedules/routines, and use of the telephone

## Why is Adaptive Behavior an Important Concept?

Adaptive behavior is a different concept than intelligence. Adaptive behaviors are learned behaviors that reflect an individual's social and practical competence to meet the demands of everyday living.

To meet the demands of their environments, each person must learn a set of skills. As environments change, people must learn new skills in order to continue to meet the environmental demands.

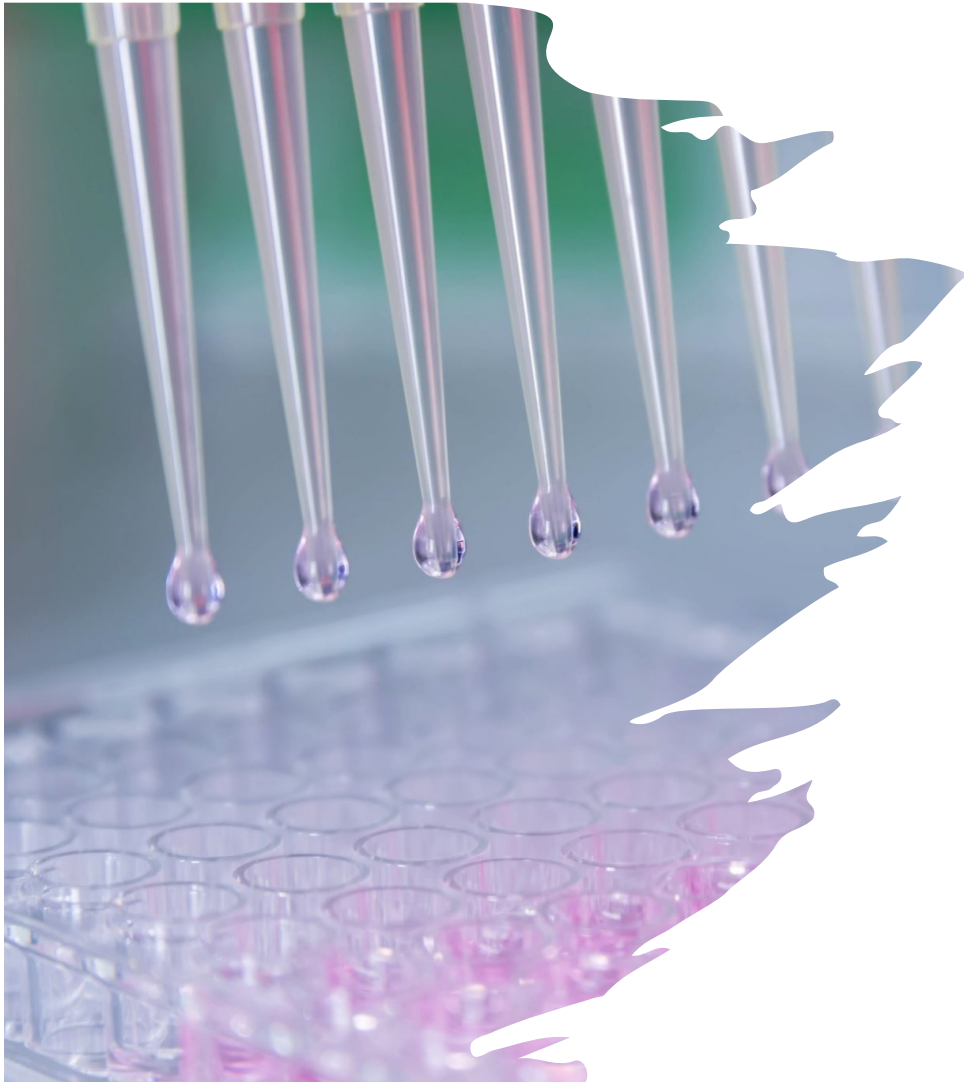
Making a phone (or video) call is an example of adaptive behavior that changed over time. The skills needed to make a call today are very different from the skills that were required 20 years ago.





## Assessing Adaptive Behavior (4 Principles)

- Vineland Definition: Performance of daily activities required for personal and social sufficiency.
- 4 Principles in this definition
  - Adaptive behavior is age-related
  - Evaluated in a social context based on expectations and standards of others.
  - Adaptive Behavior is Modifiable.
  - Defined by typical performance, not ability.



## Two of the Most Common Normed Instruments

- ABAS (PowerPoint)

<https://pages.wpspublish.com/webinars#Webinars>

- Vineland-3

<https://www.pearsonassessments.com/store/usassessments/en/Store/Professional-Assessments/Behavior/Adaptive/Vineland-Adaptive-Behavior-Scales-%7C-Third-Edition/p/100001622.html>

- Sample Reports Vineland



# Informal Adaptive Behavior

- Sample Norm-Referenced Instruments
- Patton Informal Adaptive Behavior Inventory
- Brief Interview
- Checklists
- Systematic Observation
- [Tools](#)
- Case Studies Jose and Jerry

Big Idea: Must use formal AND informal tools to measure adaptive behavior to be comprehensive.

# Policy and Practical Construct

- The term “intellectual development” is mentioned in the 2006 Code of Federal Regulations (CFR) 20 times, specifically as part of “third method” approaches:
  - § 300.309(a)(2)(i), or the child exhibits a pattern of strengths and weaknesses in performance, achievement, or both, relative to age, State-approved grade level standards or **intellectual development** consistent with §300.309(a)(2)(ii).
- Several commenters requested intellectual development (ID) be defined and clarified.



*Comment:* Several commenters requested that the regulations include a definition of “intellectual development.”

*Discussion:* We do **not** believe it is necessary to define “intellectual development” in these regulations. Intellectual development is included in § 300.309(a)(2)(ii) as one of three standards of comparison, along with age and State-approved grade-level standards. The reference to “intellectual development” **in this provision means that the child exhibits a pattern on strengths and weaknesses in performance relative to a standard of intellectual development such as commonly measured by IQ tests.** Use of the term is consistent with the discretion provided in the Act in allowing the continued use of discrepancy models.





*Comment:* Several commenters stated that intra-individual differences, particularly in cognitive functions, are essential to identifying a child with an SLD and should be included in the eligibility criteria in § 300.309.

*Discussion:* As indicated above, an assessment of intra-individual differences in cognitive functions does not contribute to identification and intervention decisions for children suspected of having an SLD. The regulations, however, allow for the assessment of intra-individual differences in achievement as part of an identification model for SLD. The regulations also allow for the assessment of discrepancies in intellectual development and achievement. (p. 46651)

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*Comment:* Some commenters recommended using “cognitive ability” in place of “intellectual development” because “intellectual development” could be narrowly interpreted to mean performance on an IQ test. One commenter stated that the term “cognitive ability” is preferable because it reflects the fundamental concepts underlying SLD and can be assessed with a variety of appropriate assessment tools.

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***Discussion:*** We believe the term “**intellectual development**” is the appropriate reference in this provision. Section 300.309(a)(2)(ii) permits the assessment of patterns of strengths and weakness in performance, including performance on assessments of cognitive ability. As stated previously, “intellectual development” is included as one of three methods of comparison, along with age and State-approved grade-level standards. The term “cognitive” is not the appropriate reference to performance because cognitive variation is not a reliable marker of SLD and is not related to intervention. (p. 46654)



# Practical Construct

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According to Sattler (2018), most experts in the fields of psychology and education generally agree that the important elements of “intelligence” include abstract thinking or reasoning, problem-solving ability, capacity to store knowledge (including academic knowledge), memory, environmental adaptation, mental speed, and linguistic competence. It is important to understand that these “processes” are interdependent and overlapping (Peterson et al., 2017; Potocki, et al., 2017), related to achievement (Fletcher & Miciak 2017; Fuchs et al., 2011), and influenced with environmental conditions such as the classroom setting versus the testing setting.

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1. Innate Cognitive Ability, 2. Language, 3. Academic/Taught Skills

The pattern is relevant to the identification of an SLD using appropriate assessments.

*Specific learning disability* (SLD) is a disorder in one or more of the **basic psychological processes (innate cognitive ability)** involved in understanding or in using **language, spoken or written**, that may manifest itself in the imperfect ability to **listen, think, speak, read, write, spell, or to do mathematical calculations (academic/taught skills)**:



Let's look at some cases



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