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OUTSTANDING PROGRAMS FOR
PARENTS AND EDUCATORS

The Root of All Evils: A Deeper Understanding of Psychoeducational Assessment Reports

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WHAT IS A "PSYCHOEDUCATIONAL EVALUATION"?

Psychoeducational

v.

Psychological

v.

Neuropsychological

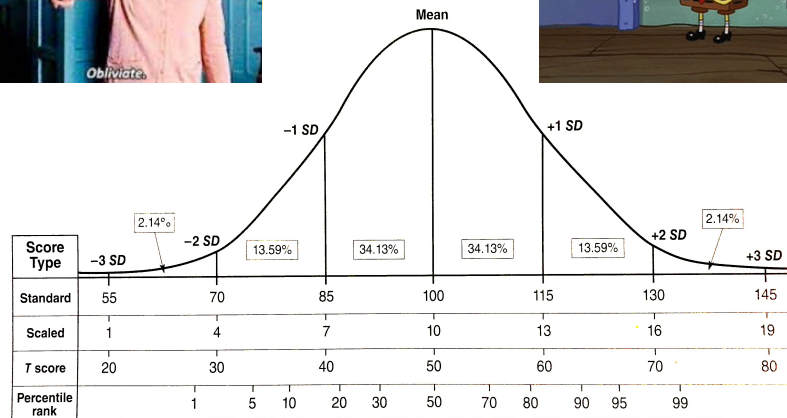
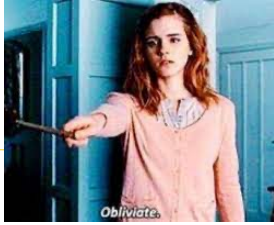


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THE NORMAL CURVE

CONFIDENCE INTERVAL(95%)



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GRADE/AGE EQUIVALENTS REPRESENT ALL THAT IS SOULESS AND WRONG

> AE and GE **DO NOT** mean “grade level” ability

- > Ahmed (1st grade)
 - > Randy (3rd grade)
 - > Rosa (5th grade)
- G.E. = 3.0



Raw Score of 16

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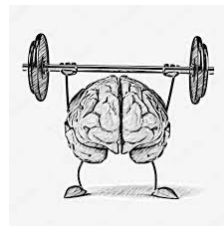
DOMAINS OF ASSESSMENT

“Intelligence”
 Verbal
 Visual-Spatial
 Fluid Reasoning
 Working Memory
 Processing Speed
 Receptive/Expressive Language
 Memory
 Sensorimotor
 Executive Functions
 Academic Skills
 Social-Emotional Functioning

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INTELLIGENCE TESTING



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WHAT IS "INTELLIGENCE" ?



- > No standard definition
- > Ability to think abstractly, or to learn from the environment, profit from experience, and adapt quickly and efficiently
- > IQ tests are NOT completely interchangeable !
- > Is it one factor (g) or many independent factors?

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CAUTIONS ABOUT FULL SCALE IQ

- > A one day, one time sample (Confidence Intervals!)
- > Only "analytical" ability
- > Motivational and emotional factors
- > Reward for speed
- > Vary from test to test
- > Cultural bias in content: improved, but still there



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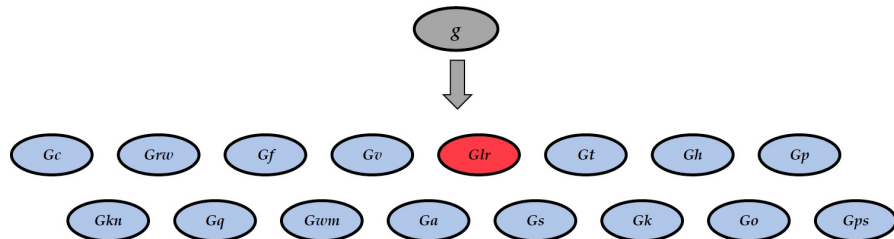
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HYPOTHETICAL STUDENT EXAMPLES



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C-H-C (CATTELL HORN CARROLL)



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EXAMPLES OF C-H-C FLAVORED TESTS*

- > Wechsler (WPPSI-IV, WISC-V, WAIS-IV)
- > Woodcock-Johnson Tests of Cognitive Abilities (WJ-IV)
- > Differential Ability Scales-2nd Edition (DAS-II)
- > Stanford Binet-5
- > Kaufman Assessment Battery for Children 2nd Edition (K-ABC-NU)

* None of these test batteries cover all C-H-C factors, and they each cover slightly different C-H-C factors.

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CRYSTALIZED/VERBAL ABILITIES (Gc)

- > WISC-V = Verbal Comprehension Index (VCI)
- > Fund of general factual information
- > Word knowledge/vocabulary
- > Verbal abstract reasoning
(e.g., "In what way are helmet and a seat belt alike?")

- > Analogy: The Librarian



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WHAT DOES WEAK Gc LOOK LIKE IN THE CLASSROOM?

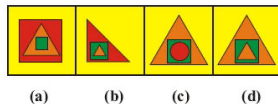
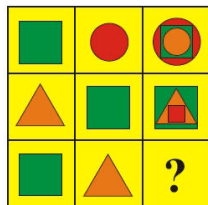
- > Weak comprehension (oral and reading)
- > Limited factual knowledge
- > Struggles with the vocabulary of math and story problems
- > Impaired word usage and grammar in writing
- > Concrete thinking



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FLUID REASONING (Gf)



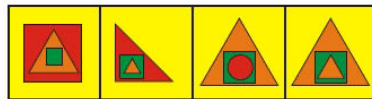
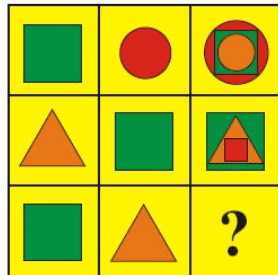
- > WISC-V = Fluid Reasoning Index (FRI)
- > Problem-solving: how we respond to a novel task
- > Concept formation (e.g., identifying a “rule” governing a series of observations)
- > Analytical skills (separating problem into its component parts)
- > Generating and testing hypotheses
- > Making inferences

- > Analogy: The Detective

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WHAT DOES WEAK Gf LOOK LIKE IN THE CLASSROOM?



(a) (b) (c) (d)

- > Difficulty...
 - drawing inferences from text or set of data
 - identifying the main idea
 - seeing a familiar pattern in a story problem and not knowing what operation to select to solve it
 - generalizing problem solving strategies from one context to another
 - comparing/contrasting ideas
 - with standardized testing

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VISUAL PROCESSING (Gv)

- > WISC-V = Visual-Spatial Index (VSI)
- > Perceive and remember spatial relationships and shapes
- > Perception of spatial orientation e.g., relative size, position, and angles
- > Matching of and memory for visual details
- > Ability to analyze (break down) and synthesize (put together) visual-spatial information



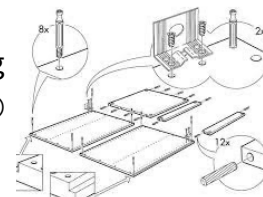
- > Analogy: The Architect

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WHAT DOES WEAK Gv LOOK LIKE IN THE CLASSROOM?

- > Difficulty reading maps, charts, graphs
- > Difficulty writing-allocating enough space, consistent letter sizes, margins
- > Misaligned numbers in arithmetic
- > Geometry, geography, art are difficult
- > Specific science skills weak (e.g., chemical elements)
- > Difficulty mentally rotating shapes, imagine them from a different perspective
- > Challenge taking proper angles in sports, driving
- > For grownups: putting IKEA furniture together 😊



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WORKING MEMORY (Gwm)

- > WISC-V = Working Memory Index
- > The “bridge” between short term and long-term memory
- > Functions like a kitchen, includes
 - Holding information (the counterspace)
 - Storing and recalling information (taking out and putting back ingredients)
 - Manipulating information (preparing the ingredients)



Analogy: The Manager

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WHAT DOES WEAK Gwm LOOK LIKE IN THE CLASSROOM?

- > Absent mindedness (“why did I come in this room?”)
- > Losing track of steps in the middle of a task/problem
- > Difficulty noticing mistakes
- > Difficulty summarizing text/material
- > Difficulty with writing, which requires multiple functions at once
- > Difficulty sounding out or spelling multisyllabic words
- > Reading comprehension
- > Math (multi-step algorithms)
- > Oral language (retelling stories; word finding)
- > Difficulty following multistep directions
- > Weak note taking

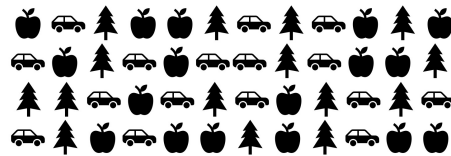


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PROCESSING SPEED (Gs)

- > WISC-V = Processing Speed Index
- > Speed to mentally process simple or routine information without making errors
- > Handling more incoming information at a time
- > Fluency is a specific application of processing speed, such as reading rate or speed with completing math fact problems



- > Analogy: assembly line worker

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WHAT DOES WEAK Gs LOOK LIKE IN THE CLASSROOM?

- > Potentially slow oral or silent reading, affecting comprehension (but can be accurate)
- > Potentially math facts are not automatic (but can be mostly accurate)
- > Difficulty initiating the writing process
- > Slow processing of incoming information, burdening working memory



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LANGUAGE ASSESSMENT

- > Not always looked at by psychologists
- > May require more in depth SLP eval
- > Speech articulation
- > Auditory processing (Ga)
- > Verbal fluency (language on demand)
- > Vocabulary
- > Semantic understanding and use
- > Syntactic understanding and use
- > Pragmatic understanding and use
- > Higher order/abstract language



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EXAMPLES OF LANGUAGE ASSESSMENTS

- > Comprehensive: CELF-5, TOAL-4, CASL-2, TACL-3
- > Narrow: OWLS-II, WIAT-4, KTEA-III achievement tests



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WHAT DOES WEAK LANGUAGE LOOK LIKE IN THE CLASSROOM?

- > Difficulty with understanding complex sentences (e.g., “The girl the dog watched ate the food the cook prepared”)
- > Frequently asking for repetitions
- > Difficulty with words with multiple meanings (“Just in case, she made her case to open the case”)
- > Difficulty putting thoughts together “on demand” (e.g., when called on in class)
- > Frequent grammatical errors in speech
- > Difficulty with elaboration or story telling (delays; limited output)
- > Limited vocabulary
- > Difficulty with higher order language (e.g., figures of speech; idioms)

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MEMORY ASSESSMENT

- > Visual versus verbal versus combined (paired association)
- > Immediate versus delayed (not quite long term)
- > Long term retrieval
- > Rote/abstract versus meaningful/context

Nine	Swap	Cell	Ring
Plugs	Lamp	Apple	Table
Army	Bank	Fire	Hold
Clock	Horse	Color	Baby
Desk	Hold	Find	Bird



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WHAT DOES WEAK MEMORY LOOK LIKE IN THE CLASSROOM?

- > Needs multiple repetitions
- > Gaps in notes
- > Forgetting to turn in homework
- > Weak performance on comprehensive exams
- > Poor recall of previously learned factual information
- > Out of sight, out of mind with math (i.e., frequent re-teaching needed)
- > Difficulty accessing background knowledge to support new learning
- > Difficulty learning math facts (accuracy)



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MEMORY TESTS

Verbal Memory

- California Verbal Learning Test: Child Version (CVLT-C)
- Children's Memory Scale (CMS)
- KABC-II: Number Recall, Word Order
- NEPSY-2: Sentence Repetition, Narrative Memory
- Test of Memory and Learning (TOMAL-2)
- WRAML3 : Story Memory, Verbal Learning and Sentence Memory
- Child and Adolescent Memory Profile (ChAMP)

Visual Memory

- Children's Memory Scale (CMS)
- KABC-II : Face Recognition
- NEPSY-2: Memory for Faces, Memory for Designs
- TOMAL-2
- WRAML3 : Design Learning and Picture Memory
- ChAMP

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SENSORY-MOTOR FUNCTIONS

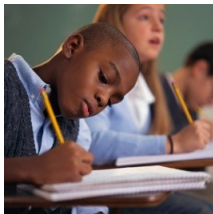


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WHAT DOES WEAK SENSORY/MOTOR FUNCTIONING LOOK LIKE IN THE CLASSROOM

- > Fine motor tasks are difficult (e.g., scissors; tying shoes; buttoning)
- > Unusual gait
- > Poor balance
- > Sensitivity to sound, noise, light, touch
- > Poor graphomotor skills (handwriting): pencil grip, pressure
- > Atypical activity level, either sensory seeking/avoiding



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TESTS OF MOTOR FUNCTIONING

- > Beery VMI-6
- > Bender-Gestalt
- > NEPSY-II : Design Copying, Fingertip Tapping, Imitating Hand Positions, Manual Motor Sequences, Visuomotor Precision
- > Grooved Pegboard Test
- > Manual Finger Tapping Test
- > PAL-II Handwriting subtest (from Reading and Writing)
- > Feifer Assessment of Writing (Dysgraphia subtests)



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EXECUTIVE FUNCTIONING

Collection of processes or interrelated functions responsible for guiding, **directing**, managing cognition, emotions, and behavior; particularly in novel problem solving situations (Gioia, Isquith, Guy & Kennworthy, 1996)

Purposeful, organized, strategic, self-regulated, goal-directed behavior. They **direct and cue** mental processes that we use to **think, feel, perceive, and act** (McCloskey, 2011)

The **directive** capacity of the human brain (Goldberg, 2011)

Choice of goals and the ability to select, enact, and sustain actions across time (Barkley, 2012)

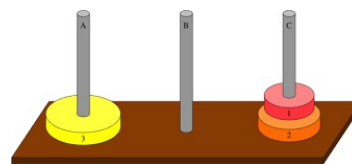
Complex cognitive processes that **control** flexible, goal-directed behavior and the coordination of numerous subprocesses and skills (Meltzer, 2013)

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HOW IS EXECUTIVE FUNCTIONING ASSESSED?

- > **Clinical history**
- > **Rating scales** (and limitations of!)
 - BRIEF-2; Conners CBRS; BASC-3; CEFI
- > **Examples of specific tests** (and limitations of!)
 - DKEFS (e.g., Trailmaking; Color-Word Interference; Sorting; Tower)
 - NEPSY-2 (Animal Sorting; Auditory Attention/Response Set)
 - Wisconsin Card Sorting
 - Continuous Performance Tests (Conners; Gordon; IVA-2)
 - TEA-Ch-2



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EF AND ADHD

- > ADHD by definition is an executive functioning disorder
 - particularly in focused attention, sustained attention, response inhibition, organization, planning, and emotional regulation
- > Individuals with ADHD have combo of EF deficits, but not all students with EF deficits have ADHD



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ADHD IMPERSONATORS

- > Anxiety/Stress
- > Depression
- > Learning Disorders
- > Language/Auditory Processing
- > Social Stressors
- > Chronic Sleep Deprivation
- > “Curriculum Disability”



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ASSESSMENT OF READING

- > Phonological Skills (CTOPP-2)
- > Rapid Automatic Naming (RAN)
- > Isolated Word Decoding
- > Nonsense/Pseudoword Decoding
- > Comprehension (memory?)
- > Fluency (oral, silent)

- > Basic: WJ-IV, WIAT-4, K-TEA-III
- > Expanded: PAL-II, Feifer Assessment of Reading (FAR), GORT-5, OWLS-II Reading Comprehension



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ASSESSMENT OF MATHEMATICS

3	6	18
6	12	36
12	24	?

- > Math Fact Fluency (written or oral)
- > Computations
- > Applied Problem Solving
- > Math Reasoning

- > Basic: WJ-IV, WIAT-4, K-TEA-III
- > Expanded: CMAT, Key Math-3, Feifer Assessment of Mathematics (FAM), PAL-II Math

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ASSESSMENT OF WRITTEN LANGUAGE

- > Handwriting
- > Writing Fluency
- > Sentence Composition
- > Long Composition (essay, narrative)
- > Spelling (real and nonsense words)
- > Editing (Syntax)

- > Basic: WJ-IV, WIAT-4, K-TEA-III, PAL-II (handwriting, essay)
- > Expanded: OWLS-II, TOWL-4, TEWL-3, Feifer Assessment of Writing (FAW)

Combining Sentences

You can **combine** two or all sentences with similar ideas into one longer sentence.

When you join the sentences you use a **comma** and a combining word such as **and, but, because, or, or so**.

Example: It is windy. You must wear a coat. → It is windy, so you must wear a coat.

Directions: Write a new sentence by combining the sentences with linking words.

1. Walk carefully. There is ice on the ground.
2. It is snowing. I will need to shovel.
3. It's fun to play in the snow. Snow makes it hard to travel.
4. Aaron threw a snowball. He made a snow angel.
5. I like apple cider. I like hot chocolate the most.
6. Put on your mittens. It is very cold outside.
7. We can go sledding. We can go skating.
8. I like to go snowboarding. I go snowboarding whenever I can.

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ASSESSMENT OF SOCIAL/EMOTIONAL FUNCTIONING

- > Anxiety Disorders
- > OCD
- > Mood Disorders
- > Disruptive Behavior Disorders (e.g., oppositional/defiant)
- > Autism Spectrum Disorder
- > Other factors (e.g., atypical life stressors; bullying; medical issues; language and acculturation; COVID stress)

Clinical Interview, Review of Records, and Rating Scales

Broad: BASC-3, Conners CBRS, Achenbach, MMPI-A, MACI-II

Narrow: Specific Anxiety, Mood, Autism, etc. scales

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GOOD EVALUATIONS

- > Background section: Goldilocks zone (not too much or too sparse)
- > Validity statement: matches the behavior observations
- > Are organized by construct, not by test battery
- > Qualitative/process data, in addition to quantitative
- > Integrate multiple sources of data (not just testing numbers)
- > **Never** make a diagnosis based on ONE subtest
- > Never, ever, ever, ever, ever use the “discrepancy” between IQ test scores and achievement test scores to diagnose a learning disability
- > Conclusion is not just a massive restatement of the results section
- > Written for the layperson, not “psychobabble”
- > Humility: an evaluation isn’t magic, and psychologists aren’t magicians
- > There have to be data to support the diagnosis !!!!!

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GOOD REPORT RECOMMENDATIONS

- > Fit the actual data from the report
- > Are feasible
- > Are designed for home and/or school
- > Are not basic teaching skills likely already tried
- > Are organized by construct
- > Talk about STRENGTHS too

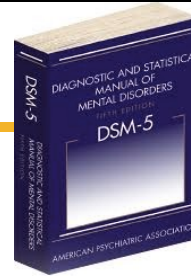


LEARNING
STRATEGIES

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DIAGNOSIS



- > DSM-5 TR is coming out in March 2022
- > DSM-5 is poor for neurodevelopmental disorders, especially LD
 - Dyslexia: Specific Learning Disorder, with Impairment in Reading
- > No good diagnostic category for certain deficits (e.g., visual spatial; working memory; dysgraphia; or executive functioning deficits without ADHD)
- > “Other Specified Neurodevelopmental Disorder” (no more NOS)

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UNIQUE CHALLENGES OF EVALUATING INDEPENDENT SCHOOL STUDENTS

- > Rating scales- overpathologizing
- > The “bad news, there nothing is wrong with your kid” paradox
- > Absolute versus relative weakness (and functional impairment)
- > The shaming of average abilities



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LEARNING SPECIALIST COMMUNICATION

- > with teachers at your school (what to share?)
- > with psychologists/providers in your community
- > with parents
- > with standardized testing publishers
- > with administration

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THANK YOU!

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