Using CHC Theory to Ensure Legally Defensible and Ethical Assessments of African American Students

CASP FALL CONFERENCE 2023

History of Larry P.

History Larry P.

- In 1979 the 9th Circuit Court decision in Larry P. v Riles ***limited the use of IQ tests for African Americans for EMR (Educably Mentally Retarded) (now ID) and EMR classes (now SDC for ID)*** because the court determined them to be biased based on evidence presented.
- In 1986 the Larry P. Settlement Agreement, expanded the injunction to ban the use of intelligence tests for African American students from just EMR and placement decision into EMR classes ***to all 13 handicapping conditions.***

History Larry P.

- In 1992 the 9th Circuit Court decision in Crawford v Honig, concluded that ***the expansion of the ban to all 13 categories was misapplied, and that the Larry P injunction applied only to the one handicapping condition (EMR and placement in EMR classes and their substantive equivalents)***.
- In 1992 and 1997 CDE wrote memorandums that stated regardless of Crawford v Honig that the ban on intelligence tests and their equivalents for African American students would still be enforced

Updated CDE Guidance re: Larry P. September 14 2022

- This memo reflects the most current federal and state statutory, regulatory and case law, and supersedes any previous guidance on this issue.
- A summary of key legal requirements for assessment follows. The California Department of Education (CDE) considers these principles in its monitoring of local educational agencies (LEAs) in relation to special education assessment of African American students.

Updated CDE Guidance re: Larry P. September 14 2022

1. No single measure or assessment may be used as the **sole** criterion for determining whether the child has a disability or for determining an appropriate educational program for the child.
2. Assessments and other evaluation materials must include those tailored to assess specific areas of educational need and not merely those that are designed to provide a single general intelligence quotient.

Updated CDE Guidance re: Larry P. September 14 2022

3. A variety of assessment tools and strategies must be used, in order to gather relevant functional, developmental and academic information about the child
4. Assessments and other evaluation materials must be valid and reliable for the purpose for which they are used.
5. Assessments and other evaluation materials must be selected and administered so as not to be discriminatory on a racial or cultural basis.

Updated CDE Guidance re: Larry P. September 14 2022

- In 1979, the court permanently enjoined LEAs throughout California from using standardized intelligence tests for (1) the identification of African American students as EMR or its substantial equivalent or (2) placement of African American students into EMR classes or classes serving substantially the same functions
- The court held that court approval would be required for the use of any standardized intelligence tests for African American students for the above purposes. The court laid out a state process for this.

Updated CDE Guidance re: Larry P. September 14 2022

- The EMR category no longer exists. The court has never held hearings to determine the "substantial equivalent" of the EMR identification or placement, or whether IQ tests are appropriate for assessing African American students for identifications or placements other than the substantial equivalent of EMR. ***The state process to seek approval has not been invoked.***

Updated CDE Guidance re: Larry P. September 14 2022

- Although the law on assessment has evolved, as described above, ***the Larry P. injunction remains in place***, and the court retains jurisdiction over its enforcement. The *Larry P.* injunction does *not* apply to tests that are not considered standardized intelligence tests.

Updated CDE Guidance re: Larry P. September 14 2022

- ***So long as LEAs follow legal requirements, generally speaking they have discretion in selecting which particular assessments to use in determining eligibility for special education.***
- When assessing for a learning disability, LEAs are not required to consider whether the student has a severe discrepancy between intellectual ability and achievement. Rather, they must permit a model based on a student's response to intervention, or RTI.
- When assessing for a learning disability using a severe discrepancy model, ***LEAs are not required*** to use IQ tests to determine intellectual ability.

Larry P. Update Interpreted

- **Is there a modern day equivalent of EMR and is the original Larry P. injunction still in place?**
  - Yes and Yes
  - The Larry P. injunction is still in place for ID and for placement in ID programs.

Larry P. Update Interpreted

- **Does the Larry P. injunction still apply to all special education disability categories?**
  - According to the memo, CDE is no longer expanding the Larry P. injunction to all other disability categories.
  - This memo reflects the most current federal and state statutory, regulatory and case law, and supersedes any previous guidance on this issue.

Larry P. Update Interpreted

- **Does the Larry P. injunction still apply to all special education disability categories?**
  - So long as LEAs follow legal requirements, generally speaking they have discretion in selecting which particular assessments to use in determining eligibility for special education.
  - If CDE intended to continue the expansion of the ban to all other disability categories, they would have addressed it within that statement.
  - *So unless ID is a suspected area of disability, school psychologists are able to exercise their judgment on what assessment tools (IQ tests) to use or not.*

Larry P. Update Interpreted

Does this mean that tests of intelligence and/or tests of overall cognitive ability can be given to African American students for all other disabilities besides ID? Can IQ tests be used for identification of Specific Learning Disability (SLD)?

- **Yes, as long as ID is not a suspected or potential area of disability.**

Larry P. Update Interpreted

- What do we do if I start the IQ test and then I think there is an ID?
- Don't start with IQ testing.
- Start with interviews, observations, developmental milestone review.

Larry P. Update Interpreted

- Can I start giving African American kids in my District IQ tests on Monday?
- No
- Take the resources and provide them to your LEA and SELPA.
- The guidance does not supersede your District/SELPA practice.

Adaptive Behavior and ID

Federal and State Ed code criteria

- Federal - 34 CFR §300.8(c)(6) Intellectual disability means significantly subaverage general intellectual functioning, existing concurrently with deficits in adaptive behavior and manifested during the developmental period, which adversely affects a child's educational performance. The term "intellectual disability" was formerly termed "mental retardation."
- State - 5 CCR §3030(b)(6) Intellectual disability means significantly subaverage general intellectual functioning, existing concurrently with deficits in adaptive behavior and manifested during the developmental period that adversely affects a child's educational performance

DSM-V Criteria

- The DSM-5 diagnosis of ID requires the satisfaction of three criteria:
  - Deficits in intellectual functioning—"reasoning, problem solving, planning, abstract thinking, judgment, academic learning, and learning from experience
  - Deficits in adaptive functioning that significantly hamper conforming to developmental and sociocultural standards for the individual's independence and ability to meet their social responsibility; and
  - The onset of these deficits during childhood.

Developmental Period

- Developmental Period: Differentiates from other disorders with similarities, such as Traumatic Brain Injury, Mental Health Disorders, and Genetic Disorders (Tuberous Sclerosis, etc.)

Classifications of Severity-DSM-V

- **Mild to Moderate Intellectual Disability**
  - The majority of people with ID are classified as having mild intellectual disabilities. Individuals with mild ID are slower in all areas of conceptual development and social and daily living skills.
  - These individuals can learn practical life skills, which allows them to function in ordinary life with minimal levels of support. Individuals with moderate ID can take care of themselves, travel to familiar places in their community, and learn basic skills related

Adaptive behavior

- Skills needed to function successfully in a given society, based on expectations for the individual's age.
- The American Association on Intellectual and Developmental Disabilities defines adaptive behavior as encompassing conceptual, social, and practical skills.
- Two standard deviations below the mean of an overall measure of adaptive behavior, or in one of three domains.

Clinical Judgement (APA Webiste)

- Analysis, evaluation, or prediction of the presenting signs and symptoms in an individual with a disease, disorder, dysfunction, or impairment.
- It includes assessing the appropriateness of particular treatments and the degree or likelihood of clinical improvement.
- These conclusions are derived from the expert knowledge of health or mental health professionals, as opposed to conclusions drawn from actuarial tables or statistical methods.

What is Culture

Wikipedia Definition of Culture

- The way of life for an entire society. As such, it includes codes of manners, dress, language, religion, rituals, norms of behavior such as law and morality, and systems of belief.
- Culture should be regarded as the set of distinctive spiritual, material, intellectual and emotional features of society or a social group, and that it encompasses, in addition to art and literature, lifestyles, ways of living together, value systems, traditions and beliefs.

What Contributes to our Cultural Perspective

- Where we are raised
- Where we live now
- TV, YouTube, TikTok, etc.
- Daily interactions
- An amalgamation of these experiences create the lens for our personal cultural perspectives.

Environment/Culture

- The impact of culture on student's learning must be addressed in all psychoeducational assessment reports.
- Each student is unique and therefore, no standardized statement is available.
- Cultural lens should be applied in the following areas:
  - Family (single parent home, divorce, custody arrangement, death of a parent),
  - Living situation (foster care, living with biological relative, homeless, recently relocated),

Environment/Culture

- Cultural lens should be applied in the following areas:
  - Language of the student (parents are non-English speakers but student is fluent, family including the student speak minimal English, student is fluent in English but prefers to speak in his/her native language),
  - Economic factors (parents are unemployed, parents are underemployed and work multiple jobs, parents employment is inconsistent

Don't Write This!!!!

- The student's primary language, ethnicity, and cultural background were taken into consideration prior to the selection of the assessment procedures. The tests chosen should be interpreted within the limits of their measured validity.

Sample 1

- *Student is a fourteen-year-old Caucasian boy born in the United States and his primary language is English. Student currently lives with his biological parents and older brother. Student's parents both work full time, have consistent housing, and report no concerns with food insecurity. Student has received consistent instruction and had no attendance issues. Therefore, no cultural, ethnic, or linguistic issues appear to be impacting Student's learning.*

Sample 2

- *Student currently lives in a two-bedroom apartment with her biological parents and older sister. Student and her sister share a room but have separate beds. Student's father works full time and her mother works part time during the day when Student and her sister are at school. Student's first language was Spanish and her mother noted that she continues to speak Spanish at home with her parents. Her academic instruction has been in English since she enrolled in Kindergarten and Student reports she speaks English with her classmates and neighborhood friends. When asked, Student said she believes her English skills are stronger than her Spanish skills.*

Sample 2

- *For this reason, Student was interviewed in English and the tests used in this assessment were administered in English. Her cognitive abilities were assessed by tests that minimized the requirement to respond verbally to questions. Additional assessment was done in Spanish to provide further information about Student's abilities. No linguistic, cultural, or economic factors appear to be contributing to Student's academic struggles*

Specific Learning Disability

Specific Learning Disability: Sec. 3030 (b) (10), Title 5, CCR:

- A disorder in one or more of the basic psychological processes involved in understanding or in using language, spoken or written, that may have manifested itself in the imperfect ability to listen, think, speak, read, write, spell, or do mathematical calculations, including conditions such as perceptual disabilities, brain injury, minimal brain dysfunction, dyslexia, and developmental aphasia.

Specific Learning Disability: Sec. 3030 (b) (10), Title 5, CCR:

- The basic psychological processes include:
  - attention
  - visual processing
  - auditory processing
  - phonological processing
  - sensory-motor skills
  - cognitive abilities including association, conceptualization, and expression.

3030(b)(10)(A)

- (A) Specific learning disabilities do not include learning problems that are primarily the result of visual, hearing, or motor disabilities, of intellectual disability, of emotional disturbance, or of environmental, cultural, or economic disadvantage.

3030(b)(10)(C)(1)(i)

(i) Oral expression.
(ii) Listening comprehension.
(iii) Written expression.
(iv) Basic reading skill.
(v) Reading fluency skills.
(vi) Reading comprehension.
(vii) Mathematics calculation.
(viii) Mathematics problem solving, and

3030(b)(10)(C)(5)

5. In determining whether a pupil has a specific learning disability, the public agency must ensure that the pupil is observed in the pupil's learning environment in accordance with 34 C.F.R. section 300.310. In the case of a child of less than school age or out of school, a qualified professional must observe the child in an environment appropriate for a child of that age. The eligibility determination must be documented in accordance with 34 C.F.R. section 300.311.

Behavioral Observations

- Classroom
- During the assessment
- Unstructured setting (lunch, hallway, PE, recess)
- Home
- Time Sampling (a must if ADHD suspected)

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Time Sampling Interval Recording

Time-Sampling Interval Recording

- Select a time period for observation (shorter the interval, the more accurate)
- Divide the time period into an equal number of intervals (10 sec observe, 5 sec record)
- Determine if you are using partial or whole interval

Time Sampling Interval Recording

- Record (Y, X, +) if the behavior occurs or does not occur (O, N, -)
- Alternate between target and classmates of same gender
- Report number of occurrences, percent of occurrence, number of nonoccurrences, and percent of nonoccurrence for target and same sex group.

3030(b)(10)(C)(3)(i)

3. The findings under subdivisions (b)(10)(C)(1) and (2) of this section are not primarily the result of:

(i) A visual, hearing, or motor disability;

(ii) Intellectual disability;

(iii) Emotional disturbance;

(iv) Cultural factors;

(v) Environmental or economic disadvantage; or

(vi) Limited English proficiency.

ED Rule Out

- Broad Band
  - BASC
  - CBCL
  - Etc.
- Narrow Band
  - CDI
  - MASC
  - Etc.

Basic Psychological Processing Areas Defined

Attention

- The mental/psychological process of maintaining alertness to incoming sensory stimuli in order to process it.
- Requires the sustained focus of cognitive resources on information while filtering or ignoring extraneous information.
- A basic or “gatekeeping” function that is a foundation to all other neurological/cognitive functions.

Subtypes of Attention

- Focused Attention: The ability to respond discretely to specific visual, auditory or tactile stimuli.
- Sustained Attention (vigilance): The ability to maintain a consistent behavioral response during continuous and repetitive activity.
- Selective Attention: The ability to maintain a behavioral or cognitive set in the face of distracting or competing stimuli. Therefore it incorporates the notion of "freedom from distractibility."
- Alternating/Shifting Attention: The ability of mental flexibility that allows individuals to shift their focus of attention and move between tasks having different cognitive requirements.
- Divided Attention: The ability to respond simultaneously to multiple tasks or multiple task demands.

Auditory Processing

- The ability to perceive, analyze, and synthesize a variety of auditory stimuli.
- Measures of auditory processing tap into auditory perception, sound discrimination, auditory mental manipulation, as well as auditory memory.

Phonological Processing

- Phonological Processing includes phonemic awareness, sound discrimination, phonetic coding, and phonological memory.
- This type of processing involves the ability to hear, manipulate and, in the case of phonological memory, remember phonemes.

Visual Processing

- The mental/psychological construct defined by cognitive mechanisms that are involved in the retention, processing, and organization of visual information so as to demonstrate accurate perception, as distinct from visual acuity.
- The ability to generate, perceive, analyze, synthesize, manipulate, and transform visual patterns and stimuli.
- May include factors such as spatial awareness, visual-perceptual skills, perceptual organization, visual mental manipulation, and perceptual discrimination.

Sensory-Motor Skills

- The mental/psychological process that involves engaging perceptual and cognitive skills to organize physical output.
- Chiefly involve fine-motor and graphomotor output.
- The sensory-motor process may include measures of visual-motor integration, motor speed, and overall fine-/gross-motor skills.

Cognitive Association

- The process of acquiring information in memory, and the system for relating that information to previously learned information to develop patterns or logical groups (long term retrieval).
- This is a foundational process that is required for more complex operations that take place in conceptualization.

Cognitive Conceptualization

- The process of using information in an increasingly more complex and fluid manner. (abstract thinking, fluid reasoning, the ability to solve novel problems) problems that can't be solved solely by relying on previous learning.
- This processing area allows a person to make generalizations or inferences.

Cognitive Conceptualization

- General Sequential Reasoning -the ability to reason logically using established premises and principles and
- Induction -the ability to observe a problem and understand the underlying rules or principles that will govern the outcome; being able to generalize from specific situations to others.
- Quantitative Reasoning –the ability to reason inductively or deductively with numbers

Cognitive Conceptualization

- Executive Function - the ability to initiate, organize, plan, working memory and shift one's mindset. The coordination of various processes to problem solve, hold in working memory, where to start, and when to give up and try a different approach.

Cognitive Expression

- Expression is the mental/psychological process of conveying the meaning of information to others via oral, written or gestural language.
- Include areas of Executive Functioning as expressive communication requires sustained attention, Initiation, planning/organization and working memory in order to be effective.

CHC Theory

Intelligence (G)

A capacity of acting or thinking in ways that are goal directed and adaptive. Most professionals a agree that intelligence involves 3 main sets of skills:

- Practical problem solving ability
- Verbal ability
- Social competence

Cattell and Horn's Fluid and Crystallized Intelligence (Cattell and Horn's Gf-Gc theory)

- Crystallized - refers to acquired skills and knowledge that are highly dependent upon exposure to culture and educational/learning opportunities.
- Fluid - refers to essentially non-verbal, culture free mental efficiency and abilities; it is less affected by a person's access to educational opportunity.
- Horn did not believe in the concept of general intelligence.
- Horn proposed 87 primary mental abilities and 8 second order abilities.

Cattell and Horn Cont.

1. Acculturation knowledge (Gc)
2. Fluid reasoning (Gf)
3. Short-term Memory (Gsm)
4. Long-term Memory (Glr)
5. Processing Speed (Gs)
6. Visual Processing (Gv)
7. Auditory Processing (Ga)
8. Quantitative knowledge (Gq)

Carroll's Three-Stratum Factor Analytic Theory of Cognitive Abilities

- Narrow (stratum I) – contains 65 narrow abilities comprising levels of mastery or speed of performance of tasks or of learning various cognitive areas.
- Broad (stratum II) – consists of eight broad factors: fluid intelligence, crystallized intelligence, general memory and learning, broad retrieval ability, broad cognitive speediness, and processing speed.
- General (stratum III) – this consists of only a general factor (g)

Cattell, Horn, & Carroll: (CHC Theory of Intelligence)

- The Cattell-Horn Gf-Gc model and the Carroll model were combined to create the CHC Theory of Intelligence
- Early models of CHC theory offered 7, 8, or 10 broad abilities and numerous narrow abilities.
- Overall, CHC Theory acknowledges the presence of a general factor (g), broad abilities (the second level with crystallized, fluid, auditory processing, etc.), and more than 70 specific abilities (reaction time, language ability, etc.)

Comprehension Knowledge (Gc)

- Measures comprehension of words (an aspect of verbal ability) and general knowledge (an aspect of crystallized intelligence).
- Gc reflects the degree to which a person has learned practically useful knowledge and mastered valued skills.
- Gc is related to the development of reading, writing, and math skills.
- Interventions may include encourage the child to discuss experiences, ask questions and make card containing vocabulary, enrichment activities (play Scrabble or other word games), etc.

Fluid Reasoning (Gf)

- The deliberate but flexible control of attention to solve novel problems that can't be performed by relying exclusively on previously learned information
- Deficits may provide insights into observed difficulties in learning or may suggest that reasoning skills in academic areas may need to be specifically modeled and taught.
- Interventions may include providing real world problems to solve, activities sorting objects or pictures, use spatial-visual tasks to break down an object and then build it again (Legos, puzzles, blocks)

Short-Term Working Memory (Gwm)

- Measures cue dependent search and recoding functions from temporary stores of verbal and numeric information in short term memory
- Interventions may include emphasize listening skills by using sequencing activities and/or reading a short story and ask the child to recall details

Cognitive Processing Speed (Gs)

- Measures orthographic and picture symbol visual perceptual discrimination ability and attentional control under timed conditions.
- Can be a predictor of skilled performance once people know how to do a task
- Interventions may include using scanning exercises (look at a row of objects and find a specific object), increase motivation, improve speed of making simple decisions (decide if a stimulus is odd or even, noun or verb, vowel or consonant)

Auditory Process (Ga)

- Measures the ability to discriminate as well as the ability to encode and synthesize auditory stimuli or the ability to detect and process meaningful nonverbal information in sound.
- Although Ga depends on sensory input, it is not sensory input itself.
- Ga is what the brain does with sensory information from the ear, sometimes long after a sound has been heard.
- The second extremely common misconception is that Ga is oral language comprehension. It is true that one aspect of Ga (parsing speech sounds or Phonetic Coding) is related to oral language comprehension but this is simply a precursor to comprehension, not comprehension itself.

Auditory Process (Ga)

- Related to both reading skills and reading comprehension
- Interventions may include rhyming activities, identifying pictures of items whose names begin with the same sound, combining smaller phonological units into spoken words, breaking whole words into smaller chunks, etc.

Long Term Retrieval (Glr)

- Measures consolidation (encoding) of semantic (meaning based) representations into secondary memory
- Limitations impact the link between working memory and long term memory
- Interventions may include over learning, mnemonics, visual representations, memory exercises and games, etc.

Visual Processing (Gv)

- Measures visual-spatial analysis, formation of internal visual images, mental transformation of images in working memory, passive storage, and recognition of images stored in memory.
- Important in academic areas where reasoning with figures, patterns, and shapes are essential.
- Interventions may include using spatial-visual tasks to break down an object and then build it again (Legos, puzzles, blocks), practice attending to details of pictures, memory exercises and memory games, etc.

Cross Battery Assessment

Test	Gc	Gf	Gwm	Glr	Gv	Ga	Gs	Sensorimotor	Attention
NEPSY-II	-Body Part Naming & Id. -Clocks -Comp. of Instructions -Theory of Mind	-Animal Sorting	-Aud. Attn. /Response Set -Inhibition -List Memory -Rep. of Nonsense Words -Sentence Repetition -Word-List Interference	-List Memory -Memory for Names Imm./Delayed -Narrative Memory -Speeded Naming -Word Generation -Memory for Designs Delayed -Memory for Faces Delayed	-Arrows -Block Construction -Design Copying -Geometric Puzzles -Memory for Designs Immediate -Memory for Faces Immediate -Picture Puzzles -Route Finding	-Phonological Processing	-Design Fluency	*Design Copying -Visuomotor Precision -Imitating Hand Positions -Finger Tapping -Manual Motor Sequences -Statue	*Auditory Attention & Response Set *Inhibition *Animal Sorting *Design Fluency

Cross Battery Fundamentals

- The Cross Battery Assessment is based on the CHC Theory of intelligence.
- The cross battery approach is a method of assessing cognitive and academic skills that allows the assessor to measure a wide range of ability and processing areas that using one battery alone (although the WJ-IV comes close) cannot capture.
- It allows assessors to augment or supplement any ability battery to ensure reliable and valid measurement of a wider range of abilities.

Organizing a Cross Battery Assessment

- Step 1 Choose your primary testing battery
- Step 2 Identify the CHC Broad Abilities that are not measured by the primary battery
- Step 3 Identify the CHC Narrow Abilities that are not measured by the primary battery
- Step 4 Administer and score the selected battery and supplemental tests
- Step 5 Enter the scores into the Cross-Battery Assessment Data Management and Interpretive Assistant (if using)

What if I DON'T USE A SOFTWARE SYSTEM LIKE XBASS?

INSTRUMENT: Subtest	Narrow Ability Measured	Score	Classification
Crystallized Knowledge (Gc)			
Fluid Reasoning (Gf)			
Short-Term Working Memory (Gwm)			
Long-Term Learning and Retrieval (Glr)			
Visual-Spatial Thinking (Gv)			
Phonological Processing (Ga)			
Processing Speed (Gs)			
Sensorimotor Processing			
Attention and Executive Function			

African American Battery

- I essentially create my own version of the WJ-IV using non IQ measures
- I utilize the narrow abilities of CHC to create a picture of the broad ability without using the XBASS
- AA sample test battery list

Gc

TAPS-4 Listening Comprehension Index

- Processing Oral Directions - *Listening Ability (LS)*
- Auditory Comprehension - *Listening Ability (LS)*

Gf

- D-KEFS: Sorting Test-Free Sorting - *Induction (I)*
- D-KEFS: Word Context Test - *General Sequential Reasoning (RG)*

Gwm

TAPS-4 Auditory Working Memory Index

- Number Memory Forward - *Memory Span (MS)*
- Number Memory Reversed - *Working Memory (MW)*
- Sentence Memory - *Memory Span (MS)*
- Word Memory - *Memory Span (MS)*

Glr

- NEPSY-II: Narrative Memory Free and Cued Recall - *Meaningful Memory (MM)*
- NEPSY-II: Memory for Names - *Associative Memory (MA)*

Ga

- TAPS-4: Phonological Blending - *Phonetic Coding (PC)*
- TAPS-4: Phonological Deletion - *Phonetic Coding (PC)*
- TAPS-4: Word Discrimination - *Phonetic Coding (PC)*
- NEPSY-II: Repetition of Nonsense Words - *Memory Span (MS) and Memory for Sound Patterns (UM)*

Gs

- D-KEFS: Trail Making Test-Number-Letter Switching - *Perceptual Speed (P)*
- D-KEFS: Trail Making Visual Scanning - *Perceptual Speed (P)*

Sensory Motor

- Beery VMI
- Beery Motor Coordination

Attention

- NEPSY-2 Auditory Attention
- NEPSY-2 Response Set
- NEPSY-2 Inhibition

Orthographic Processing

- CTOPP-2 Rapid Digit Naming
- CTOPP-2 Rapid Letter Naming

Rapid Naming (Retrieval Fluency)

- NEPSY-2 Speeded Naming Total Completion Time (Glr: NA)
- NEPSY-2 Speeded Naming Total Correct (Glr: NA)
- NEPSY-2 Speeded Naming Combined (Glr: NA)