## SCHOOL NEUROPSYCHOLOGICAL EVALUATION

This report is to be interpreted and used only by individuals properly trained and certified by state agencies, and/or by parents or legal guardians of the stated child. This report is confidential and must not be released to persons who do not have a legitimate professional interest in the child.

## **IDENTIFYING INFORMATION**

Name: Sample Case Date of Birth: 6/9/2009 Age: 14 years old

Gender: Male Ethnicity: Caucasian Primary Language: English

School: Seven Springs Middle School

Parents/Guardians: Mrs. Case (Mother), Mr. Case (Father)

Grade: 7th

Examiner(s): Report Date: 6/1/2023

Date(s) of evaluation:

Date(s) of evaluation

n/a

## **Test Observations and Related Assessment Validity**

#### **Test Observations and Related Assessment Validity Summary**

Sample arrived for testing on time. He was well dressed and presented with good hygiene. Sample was fully alert and oriented at the time of testing. Rapport was readily established. Sample was quiet, friendly and engaging with the examiner. He was a very polite young man. He approached the testing in a cooperative manner and appeared to want to do his best. Speech was normal in rate and rhythm. Sample presents with a soft voice. Thought processes were logical and linear with no evidence of a thought disorder. Psychomotor behavior was within the normal range. Affect was generally appropriate. Sample put forth very strong effort throughout the testing. Sample engaged in conversations with the examiner regarding the assessments and shared that he enjoyed using manipulatives to solve the block problems and shared that he did not like the reading or math assessments. He would become visibly anxious- fidgeting in seat, playing with pens, tearing/folding/crumpling paper during the reading and math assessments. He also shared that he was not good at reading, writing or math.

The reader is reminded that these results are compiled from tests that were not normed from the same sample; however, test results have been integrated with data from other sources including review of records, interview, observations, other test results and work samples to ensure ecological validity. Standardization was followed for all administrations. No single test or procedure was used as the sole determining criteria for eligibility or educational planning. Unless otherwise noted these results are considered a valid estimate of Sample's demonstrated skills and abilities at this time.

## **Basic Sensorimotor Functions**

## **Sensorimotor Functions NPCC-3 Narrative:**

Mrs. Case Says: "Sample's mother and teacher did not report any concerns with Sample's sensorimotor functioning. All sensorimotor functioning appears to be age appropriate for Sample."

Lateral Preference: Measures hand dominance or preference when completing motor activities.

Lateral Preference: Left. Parent and Sample report that he throws and catches left-handed as well as writes left handed.

**Sensory Functions:** Measures auditory and visual acuity (how well the student hears and sees) and measures of tactile sensation and perception (how well the student responds to touch).

Per the parent and teacher's responses on the NPCC-3, there appear to be no significant concerns with Sample's auditory acuity, visual perception, tactile sensation and perception. Sample's sensory functions appear to be in the expected age range for his age.

### **Fine Motor Functions Narrative:**

The NEPSY-II subtests measuring fine motor speed and coordination (Finger Tapping,) examine a student's ability to accurately and smoothly perform fine motor tasks. Differences between dominant and nondominant hand skills are compared. Sample demonstrates average fine motor planning abilities. This indicates that Sample is able to plan and coordinate his body in a well planned and accurate manner. Which is reflective of parent and teacher reports regarding Sample's fine motor abilities in the classroom and in the home setting.

#### **Visual-Motor Integration Skills Narrative:**

Sample's visual motor integration, visual perception and motor coordination were measured to be in the slightly below expected range. This indicates that in the classroom, note taking and frequent writing may be slightly challenging for Sample.

## **Visual Scanning / Tracking Narrative:**

Sample's visual scanning skills ranged from below expected to at expected. Sample performed in the below expected range when he was asked to copy symbols paired with numbers and performed in the at expected range when asked to scan and match a shape to the target shape and when asked to identify small parts of a whole puzzle. This indicates that Sample may have some challenges with visual scanning when paired with motor speed, so academic tasks involving writing quickly while visually scanning may be challenging, such as note taking, copying notes from a book/the board or solving math problems.

**Gross Motor Skills:** Sample appears to have average gross motor functioning as reported by himself, his mother and his teacher. Sample is an active boy who participates in wrestling, baseball and basketball. During observations, Sample was able to navigate around campus, around his classroom and within the examiner's office with no difficulties. Sample's gross motor skills appear to be well-developed and age appropriate.

#### **Qualitative Behaviors for Sensorimotor Functions Narrative:**

Sample's behaviors during testing were compared to his same aged peers in the standardization sample. In all areas, Sample performed as well as peers his own age. This indicates that Sample is able to monitor his hand performance and maintain speed without relying on other types of behaviors such as visual guidance, posturing or mirroring, to complete a task.

## **Summary of Visuospatial Processes**

Overall, Sample's mother and teacher reported no concerns with Sample's sensorimotor functioning. On standardized assessments, Sample displayed at expected abilities in the areas of: visual scanning with minimal to no motor speed involvement and slightly below expected to below expected abilities in the areas of: visual motor integration and visual scanning when paired with motor speed. It appears that when Sample is asked to copy information or asked to control his writing in a precise manner, he has some difficulty. This indicates that in the classroom, Sample may present with challenges when asked to take notes, copy from a book/the board, scan a worksheet and solve math problems.

## **Cognitive Processes: Visuospatial**

### **Visuospatial Functions Narrative:**

Mrs. Case Says: "Sample's mother and teacher report no concerns in the home or classroom setting with Sample's visuospatial processing. They both indicate that Sample knows his directions and does not display challenges when completing puzzles."

## **Visuospatial Perception Narrative:**

Sample's visuospatial perception is measured to range from the well below expected range to the expected range. When Sample was asked to identify and mark letters written backwards within a time limit, he performed in the well below expected range, when he was asked to point to a design that matched a target design, he performed in the slightly below expected range and when asked to create designs using manipulatives, he performed in the at expected range. Sample displayed the same challenges in the area of visual scanning and motor coordination. It appears that when Sample is asked to scan visually and write, he has challenges.

It is noted that when Sample was asked to reconstruct designs utilizing blocks, he was very excited and said it reminded him of playing with Legos when he was younger. He was very engaged in the task and enjoyed it.

#### **Visuospatial Reasoning Narrative:**

Sample's abilities to recognize spatial configurations, discriminate shapes in various states of design and visually match shapes were measured to be in the at expected range. This indicates that Sample should not have difficulties in the classroom in areas such as mathematics including geometry.

#### **Qualitative Behaviors for Visuospatial Processes Narrative:**

When asked to create designs using blocks, Sample did not make any dimension errors or rotation errors.

## **Summary of Visuospatial Processes**

Overall, Sample's visuospatial abilities fell within the well below expected range to the at expected range. Sample had difficulty when asked to identify and mark letters written backwards within a time limit, which is consistent with his performance on other measures that require him to scan and mark items. When asked to recreate designs utilizing manipulatives and when asked to recognize spatial configurations, discriminate shapes and visually match shapes, he performed in the at expected range.

This indicates that in the classroom, Sample will be able to utilize manipulatives appropriately, complete tasks which require visual discrimination such as math and geometry and is able to adequately reason visuospatially. Sample will have difficulty when asked to scan and utilize motor coordination such as note taking and writing, so utilizing prewritten notes and allowing Sample to type will make these tasks easier and more meaningful.

## Cognitive Processes: Auditory/Phonological

#### **Auditory/Phonological Functions Narrative:**

Mrs. Case Says: "Sample's mother and teacher report no concerns with Sample's auditory and phonological functioning. They both report his sound discrimination, blending of words, rhyming and reading of words to be within the expected range for his age."

## **Auditory/Phonological Processes Narrative:**

## **Summary of Auditory/Phonological Processes**

Sample's parent and teacher report no concerns with his auditory and phonological processing. Standardized measures indicate he has well developed auditory and phonological processing. He is able to adequately blend words together, break words into smaller parts, manipulate words and sounds within words and determine missing sounds in words. Overall, Sample displays age appropriate phonological and auditory processing skills.

## **Cognitive Processes: Learning and Memory**

## **Learning and Memory Functions Narrative:**

Mrs. Case Says: "Sample's mother reports mild concerns with his ability to learn new information both visually and verbally as well as his ability to retain and recall information over a week or so. His teacher reports mild concerns with his ability to integrate visual and verbal information and his ability to turn in homework. She also reported moderate concerns with his ability to learn information both visually and verbally and to demonstrate what he's learned via quizzes and tests."

## **WRAML3 Memory Indices Narrative:**

Sample displayed expected abilities in the areas of verbal immediate memory verbal recognition and attention/concentration. Sample demonstrated expected abilities when learning information verbally as well as expected levels of attention and concentration and his ability to recall verbally learned information when provided with cues.

Sample's visual recognition and overall working memory is measured to be in the slightly below expected range. He demonstrated slightly below expected abilities when given cues to help him recall visual information. Sample's visual immediate memory, visual delayed memory and his verbal delayed memory is measured to be in the below expected range. Sample demonstrated below expected abilities when learning information visually as well as when asked to recall visually and verbally learned information.

### **Rate of Learning Narrative:**

Sample's rate of learning was calculated regarding his ability to learn new information both verbally and visually. Sample presented with higher rates of learning when information was learned verbally and challenges when information as learned visually. As the charts above notate, Sample learned more words than peers his own age immediately but when asked to recall the verbally learned words after a delay, he recalled less than his peers. When Sample was asked to learn information presented visually through designs, he was able to recall significantly less than his peers both immediately and after a delay. This indicates that Sample's rate of visual learning is lower than that of his same aged peers and that his delayed recall of information learned both visually and verbally is lower than that of his peers. In the classroom, Sample will learn best when information is presented and paired both verbally and visually and he may struggle to recall information after a period of time has passed.

## **Immediate Verbal Memory Narrative:**

Sample's immediate verbal memory indicates that overall, Sample has well developed immediate verbal memory, however he did present with some challenges when asked to recall information from stories. When Sample was presented with arbitrary numbers and letters, he was able to recall and repeat them back immediately as well as recall and repeat back words and sentences. When read a story and asked to repeat the story back, he had difficulty. He was able to recall some information, but not a lot. Overall, this indicates that when Sample is asked to recall immediately information he's learned, he will have no difficulty unless there is a large quantity of information, then he may have challenges and forget parts of what he's being asked to recall. In the classroom, information should be chunked in small amounts to make it easier for Sample to recall.

## **Immediate Visual Memory Narrative:**

Sample's immediate visual memory was assessed and his immediate visual memory fell within the below expected to at expected range. Sample presented with below expected abilities when asked to redraw shapes in their proper locations as well as retain and recall a series of shapes presented. He displayed slightly below expected abilities when asked to place cards in the correct placement to recreate a previously seen design, recall a previously seen face and identify items in a picture that were different from a previously seen picture. Sample presented with expected abilities when asked to tactilely touch a demonstrated pattern.

This indicates that overall, Sample has challenges when asked to recall and draw/write information he's previously learned in a visual fashion as well as retain visually learned information. In the classroom, Sample may have more difficulty recalling abstract and novel information and may need multiple exposures to retain the presented visual information.

#### **Delayed Verbal Memory Narrative:**

Sample displayed some challenges when asked to recall verbal information after a delay of approximately 20-30 minutes. Sample performed in the well below expected range when asked to recall details from a story, performed in the slightly below expected range when asked to recall lists of random words and in the at expected range when asked to recall the previously learned words and stories while being provided semantic cues. This indicates that Sample is able to retain previously learned information but may have difficulty recalling it unless provided with cues to help him retrieve it. Both information presented with contextual cues and without contextual cues were challenging for Sample to recall after a delay, but his recall for both information with and without contextual cues increased significantly when provided with semantic cues to help him recall the information.

In the classroom, Sample will benefit from cues to help him recall previously recalled information- multiple choice questions will be helpful, as well as verbal semantic cues to help him retrieve the information.

### **Delayed Visual Memory Narrative:**

Sample's delayed visual memory was measured to be in the well below expected to the expected range. When asked to recall the location of designs previously seen, Sample had significant difficulty. When asked to recall faces, design elements he had previously seen and pictures he had previous seen, he presented with slightly below expected abilities. Sample demonstrated at expected abilities when provided with visual cues (multiple pictures to choose from). Sample appeared to benefit from visual cues when the material was arbitrary shapes, but demonstrated difficulty when the visual cues were presented for material that had meaning.

In the classroom, Sample will benefit from repeatedly viewing and reviewing visual materials and will benefit from being provided with visual cues to help him recall the previously learned information.

### Verbal-Visual Associative Learning and Recall Narrative:

Sample's verbal-visual learning and recall was measured to be within the below expected to at expected range. Sample displayed adequate abilities to learn the names of faces and to recall previously learned symbol names when provided with cues to help him recall the names. He displayed slightly below expected abilities when asked to immediately recall symbol names and recall the names of faces after a delay.

#### **Summary of Learning and Memory Processes**

Sample's mother and teacher report concerns with Sample's ability to recall information that he's learned over the course of a week and his ability to remember to do things like turn in homework and learn information both visually and verbally.

Sample's immediate memory, delayed memory and verbal-visual associative learning was measured and Sample displayed scattered abilities ranging from the well below expected range to the at expected range.

Sample displayed below expected abilities when recalling new information learned visually however when asked to recall information learned verbally, he performed better. When learning information verbally, Sample is able to better recall the information learned immediately, but has challenges encoding, storing and retrieving the learned information. He benefits from verbal cues to help him recall verbally learned information.

When material is learned visually, Sample has challenges recalling the information immediately and has significant challenges recalling it after a delay.

It is noted that semantic cues help Sample recall visually learned information.

In the classroom, cues will imperative for Sample to be able to recall information both immediately and after a delay. Sample will benefit from the pairing of visual and verbal information together in addition to sematic cues to help him recall information he's previously learned. In addition, Sample will benefit from repetition to help encode learned information and will benefit from making meaningful connections to the material being learned. Sample will also benefit from typing/writing his homework assignments in a planner as a way to help him remember what he needs to do and by when. Sample may also benefit from checklists and frequent reminders to make sure he's taking notes on materials learned.

## **Cognitive Processes: Executive Functions**

#### **Executive Functions Narrative:**

Mrs. Case Says: "Sample's mother and teacher report mild concerns with his planning, learning new concepts, losing track of his items and not thinking before acting. His mother also shared that Sample gets frustrated with himself easily and wants to quit when he begins feeling frustrated. His teacher reports he moves from task to task or assignment to assignment, but does not often complete the whole task or assignment. Both his mother and teacher feel Sample has low frustration tolerance and quits when he feels things are hard. "

## Cognitive Flexibility (Set Shifting) Narrative:

Sample's verbal flexibility was measured to be in the well below expected to expected range. When Sample was asked to listen to a series of words and touch colors in relation to the rules learned, he performed in the at expected range. In contrast, when Sample was asked to read a series of directions and shapes given specific parameters, he displayed significant difficulty remembering the rules presented and reading according to these rules. It is noted that Sample performed in the below expected range on other NEPSY Inhibition tasks which are prerequisites to the NEPSY Inhibition Switching. His performance on the prerequisite subtests impact his ability to perform the tasks required on this particular subtest.

It appears Sample had difficulty when asked to verbally read and remember the rules, as opposed to listening, touching and remembering the rules. Sample would frequently verbalize "This is hard" and "I don't like this" and would often ask how much more of these he had to do. This indicates that Sample may have trouble shifting his thoughts and cognitive processes from one task to another.

#### **Concept Recognition and Generation Narrative:**

Sample's concept recognition and generation was measured to be in the at expected range. He was asked to sort animals into different categories as well as asked to verbally describe how two words were similar. Sample was able to sort and articulate in an age appropriate and concise manner.

#### Problem Solving, Fluid Reasoning, and Planning Narrative:

Sample's visual, verbal and quantitative reasoning was measured to be in the at expected range. He was able to answer questions, visually solve matrixes that had missing pieces, identify how pictures shared characteristics and identify how items were related to each other.

#### **Response Inhibition Narrative:**

Sample's verbal response inhibition was measured to be in the well below expected to below expected range. Sample had significant challenges when asked to quickly name items given a set of parameters to remember. Sample made quite a few mistakes while reading but would catch and correct himself. This indicates that Sample has good self-monitoring abilities.

## **Qualitative Behaviors for Executive Functions Narrative:**

Sample's behaviors were observed and his ability to respond verbally rather than pointing was measured to be in the at expected to above expected. Sample's behaviors were measured to be age appropriate.

#### Behavior Assessment System for Children, Third Edition (BASC-3) Narrative:

Sample's mother and teacher report his overall executive functioning, problem solving, attentional control, behavior control and emotional control to be within the average range as measured by the BASC-3.

#### **Summary of Executive Functions**

Sample's mother and teacher reported mild concerns with his ability to plan, learn new concepts, disorganization and impulse control. It was reported that Sample loses items, gets frustrated easily and gives up quicky and moves from one task to another when he feels the task becomes too hard and doesn't finish work.

When asked to generate concepts using both picture cards and verbally, Sample had no difficulties articulating, verbalizing and describing the concepts he was asked about. When asked to answer comprehension questions and use inductive and deductive reasoning to solve a series of problems, Sample performed in the at expected range. Sample has a strong grasp of concepts, inductive and deductive reasoning. Sample also demonstrated good self-monitoring abilities.

When Sample's cognitive flexibility was measured, he performed in the well below to below average range when information was presented that Sample had to remember and act accordingly with while reading and within the expected range when information was presented auditorily to him. These challenges were also seen when Sample was asked to verbally name shapes given specific parameters and rules. Sample may have trouble shifting his thoughts and cognitive processes from one task to another and he appeared to have difficulty remembering the rules he was taught and applying said rules to what he was asked to read. This indicates that Sample has challenges with cognitive flexibility regarding new and novel rules and stimuli. Sample will benefit from repetition and discussions of "why" when presented with new or novel rules and ideas.

## Facilitators/Inhibitors: Allocating and Maintaining Attention

#### **Attention Functions Narrative:**

Mrs. Case Says: "Sample's mother and teacher report Sample gets overwhelmed with difficult tasks, has difficulty sustaining his attention for long periods of time, seems to get lost while doing his work and can make careless mistakes."

## **Attentional Capacity Narrative:**

Sample's attentional capacity was measured to be within the slightly below expected to expected range. Sample had no difficulties holding on to information and repeating it back until the information became longer. When long sentences were presented or a story, Sample had more difficulty sustaining his attention and being able to recall the information he had just heard. It is noted that while Sample's performance on standardized measures of attention were in the expected range, one needs to remember that these subtests were completed in an ideal environment meant to limit distractions- quiet, one to one setting. Sample's attention is in the expected range in this type of environment; however, it is noted that in a "typical" environment (i.e., classroom) Sample has difficulty sustaining attention for long periods of time, therefore it will be beneficial for Sample to be in a quiet environment with minimal distractions for best attentional performance. It will also be beneficial for Sample to have information chunked into small amounts to make attending to the presented information and remembering the presented information easier for him.

## **Qualitative Behaviors for Attentional Processes Narrative:**

Sample's behaviors were observed and it was determined that his behaviors were age appropriate when compared to peers his own age and his behaviors were in the above expected range when compared to peers his own age who have ADHD. This indicates overall that Sample did not present with any behaviors such as off task, inattentive and excess movement that would indicate Sample may being impacted by these types of behaviors. Sample was observed to fidget with his pencil and tap it, but it was observed to be more anxious behaviors than off task/distractible behaviors.

## Behavior Assessment System for Children, Third Edition (BASC-3) - Ratings of Attention Narrative:

On the BASC-3 Rating Scale, the majority of scales relating to attentional processing fell within the average range.

### **Summary of Attentional Processing**

Sample's mother and teacher report concerns with Sample's ability to sustain his attention for long periods of time, lose his place doing school work, persevere through tough tasks and the careless mistakes he makes. Sample's selective and sustained attention was measured to be in the at expected range as was his attentional capacity. Sample did display some difficulty sustaining attention when auditory information was long, such as a long sentence or story being read. This indicates that Sample may benefit from chunking of information in the classroom in order to maintain his attention, but overall, Sample displays adequate attentional capacity as well as adequate sustained and selective attention.

## Facilitators/Inhibitors: Working Memory

## **Working Memory (NPCC-3) Narrative:**

Mrs. Case Says: "Sample's mother and teacher report numerous mild concerns with Sample's working memory. They both indicate that Sample has trouble following multiple step directions, loses track of where he is/what he's doing, loses his place while doing math or writing and has trouble remembering math steps and what he's read from a text. His mother shared that summarizing is the most challenging thing for Sample. He can read a chapter and know what it says, but is unable to put it down on paper and breaking down what he's learned into the import facts of points. While writing, he loses interest and rushes to get it done and will skip steps of assignments to get it down or forgets the steps completely."

## **Working Memory Narrative:**

Sample presented with slightly below expected to expected verbal working memory abilities and below expected to expected visual working memory abilities.

Sample presented with expected abilities when asked to repeat back numbers in reverse order, repeat numbers in sequential order, solve basic addition problems mentally and recall the order of pictures he had previously seen.

Sample had slight difficulty when asked to recall a list of words after hearing a second list of words and slight difficulty when asked to recall back a series of numbers and letters in a specific order. Sample appeared to have some difficulty when asked to recall information following specific rules, as if remembering the information and applying the rules to that information overloaded what he was able to hang on to and manipulate. Sample had difficulty when asked to touch pictures after the examiner touched them following specific rules.

This indicates that in the classroom, Sample may become overwhelmed by information that he is required to retain and apply, so it may be beneficial for him to receive information chunked and rules, such as math steps, provided on a sheet for him to refer to as needed.

## **Qualitative Behaviors for Working Memory Narrative:**

Sample's abilities were compared to peers his own age who responded in the same manner that he did, and overall, most of Sample's answers on the WISC-V were also demonstrated by 75% or more of his same aged peers who have also taken the same assessments. The exception being digit span sequence, in which only 31% of peers repeated the same length of numbers in sequential order. This indicates that Sample's performance is comparable to, on average, 75% or more of his same aged peers.

## **Summary of Working Memory**

Sample's mother and teacher report mild concerns with Sample's ability to remain on task, follow steps while completing work, summarizing and retaining important learned information. Standardized assessments indicate that Sample has slightly below expected to expected verbal working memory abilities and below expected to at expected visual working memory. Sample presented with challenges when asked to retain information and apply specific rules which requires him to mentally manipulate the information before repeating it back. Sample appeared to have challenges applying the manipulation rules. This indicates that in the classroom, Sample may have challenges when asked to mentally manipulate information or recall new learned rules and apply those rules to answer questions or solve problems. Sample may benefit from chunked information and having newly learned rules, such as math steps, written down to reference.

## Facilitators/Inhibitors: Speed, Fluency, and Efficiency of Processing

#### Speed, Fluency, and Efficiency of Processing Functions Narrative:

Mrs. Case Says: "Sample's mother and teacher report mild to moderate concerns with Sample's fluency and processing speed. His mother shared that this is her biggest area of concern- Sample takes longer than most to complete tests and assignments, even when they're computer based- he will rush just to get through them. If there's time on a test, he feels pressure and stress which causes him to have trouble thinking. Reading comprehension is challenging because he has to slow down which makes him feel like it's taking forever so he becomes frustrated. Sample is able to speak very articulately but struggles to put that into writing and memorization of math facts, formulas and equations are challenging for him."

#### **Performance Fluency Narrative:**

Sample presented with below expected to at expected perceptual fluency, well below expected to at expected naming fluency and expected oral motor fluency. When Sample was asked to copy symbols paired with a shape, he performed in the below expected range, however when he was asked to match a target shape in a series, he performed in the expected range. Sample displayed challenges when asked to rapidly and accurately name shapes. Sample was able to accurately name the shapes, but had challenges when asked to name them with a specific rule in place. His time was slower than that of other peers and he made overall errors, specifically self-corrected errors. So, Sample realized he was making the errors and self-corrected, which indicates good self-monitoring skills. Sample was able to name a series of objects/number letters but did so slightly slower than other peers his own age as well as made more self-corrections. When asked to repeat back non-sense words, Sample performed in the expected range. Sample enjoyed this task- he laughed at some of the nonsense words and shared that some would make a good name for a WWE wrestler.

#### **Retrieval Fluency Narrative:**

Sample's word fluency and semantic fluency is measured to be in the at expected to well above expected range. Sample was asked to generate words starting with a specific letter or that fit into a specific category. Sample excelled at these tasks. He enjoyed doing them. This is noted as an area of strength for Sample. This indicates in the classroom that Sample is a quick thinker and can generate ideas well and can express them very well verbally.

## **Acquired Knowledge Fluency Narrative:**

Sample's performance on measures of academic fluency was variable, ranging from slightly below expected to the expected range. Sample showed expected abilities in his ability to read a list of irregular words, read a passage silently and answer comprehension questions, decode words and read a passage out loud and answer comprehension questions

Sample had some challenges when asked to read a list of words or a paragraph quickly- he read them accurately, but took longer than expected to read them. He also had difficulty choosing the missing morpheme in a word, writing sentences fluently and solving subtraction and multiplication problems quickly. Sample was able to solve them, however it took him longer than other peers his age.

This indicates that in the classroom, Sample should be able to read both silently and out loud fluently as long as there are no time constraints placed on him. Sample will benefit from wait time when asked to do something and will benefit from not receiving timed tests/time limits.

#### **Qualitative Behaviors for Processing Speed Narrative:**

Sample's errors on the WISC-V coding and symbol search were analyzed. Sample did not make any errors on either subtest so when that data was analyzed, it indicated that less than 25% of his same aged peers performed the same. The lack of errors indicates that Sample displayed good self-monitoring while completing these tasks.

## Summary of Speed, Fluency, and Efficiency of Processing

Sample's mother and teacher report mild to moderate concerns with his fluency and processing speed. They noted that Sample takes longer to complete tasks than other students, he feels pressure and panics under time constraints and has trouble with reading comprehension. Sample has great articulation but struggles to show that in writing and has difficulty memorizing math facts, formulas and equations.

Sample presented with challenges in the areas of perceptual fluency and naming fluency as well as challenges with his phonological decoding fluency, morphological decoding fluency, writing fluency and math fluency. Sample had below expected abilities when

asked to copy symbols under their corresponding numbers, quickly name shapes remembering specific rules, read a list of words and a paragraph quickly as well as solve subtraction and multiplication problems quickly. Sample presented with strengths in the areas of reading irregular words, silent and oral reading for comprehension, decoding and word and semantic fluency.

This indicates that in the classroom, Sample may have challenges when asked to complete timed tests, remember/recall newly learned rules to apply to problems. Sample will benefit from wait times as well as non-timed tests or time limits being placed on time. Extended time may also be beneficial for Sample.

## Acquired Knowledge: Acculturation Knowledge

#### **Summary of Acculturation Knowledge**

Sample's acculturation knowledge is measured to be in the expected range. Sample's semantic memory was measured to be in the at expected range as well. Sample was able to answer a series of questions which required him to access knowledge he's acquired over his lifetime.

This indicates that Sample is able to recall information he's learned over his lifetime so in the classroom, Sample should not have difficulties recalling information regarding general knowledge.

## Acquired Knowledge: Language Abilities

#### **Language Functions Narrative:**

Mrs. Case Says: "Sample's mother and teacher currently report no concerns with Sample's language functioning. Sample is able to speak clearly and concisely, with a well developed vocabulary. Sample is able to understand and comprehend what others are saying to him. Parent and teacher report Sample's language functioning is age appropriate at this time."

## **Overall Language Abilities Narrative:**

Sample's overall oral language was measured to be in the above expected range. Sample presented with well-developed oral expression and listening comprehension. This indicates in the classroom Sample will be able to articulate ideas and express himself well verbally. He also demonstrates adequate listening comprehension which in the classroom results in Sample being able to listen and comprehend information adequately.

## **Oral Expression Narrative:**

Sample's oral expression, expressive vocabulary and overall vocabulary were measured to be in the expected to above expected range. Sample performed exceedingly well when asked to name pictures and give definitions of words. This indicates in the classroom Sample will be able to articulate his thoughts and be well-equipped to contribute meaningful information to discussions.

### Receptive Language (Listening Comprehension) Narrative:

Sample's receptive language was measured to be in the slightly below expected to expected range. Sample displayed slightly below expected when asked to listen to directions and recall those directions when there was distracting auditory stimuli, however when Sample was asked to listen to directions and recall them with no distracting auditory stimuli, he performed in the expected range. This indicates that Sample can become distracted by competing auditory stimuli when asked to listen to information, so in the classroom, attempts should be made to reduce competing auditory stimuli when Sample is being asked to remember information presented verbally. Providing a quiet setting for Sample to listen to directions will be important for him.

#### **Qualitative Behaviors for Receptive Language Narrative:**

Sample's observed behaviors for his receptive language was measured to be in the at expected to above expected range. When his behaviors were compared to peers his own age, he asked for repetitions at the same amount as 26-75% of his peers meaning, he performed as expected for his age. When compared to a clinical group of students with ADHD, he asked for repetitions while listening to a series of instructions less than peers who have ADHD and asked for repetition the same amount while listening to a list of words.

## **Summary of Language Functioning**

Sample's mother and teacher reported no concerns with Sample's language functioning and this was seen on standardized measures as well. Sample presented with expected to above expected abilities when asked to use expressive language to identify and define words. His ability to comprehend verbal directions were in the at expected range, with the exception of listening to directions with background noise, which was a bit more challenging for Sample. When the background noise was removed, Sample was able to listen and recall the presented directions. This indicates that in the classroom, a quiet setting will be helpful for Sample to be able to understand and comprehend directions. Sample should not have difficulty expressing himself verbally and should be able to contribute meaningful information and engage in meaningful dialogue in classroom discussions.

## Acquired Knowledge: Reading Achievement

#### **Academic Functions: Reading Narrative:**

Mrs. Case Says: "Sample's mother and teacher report that Sample has difficulty understanding what he's read, he has difficulty identifying the main elements in a story, he gets distracted easily while reading, he misses important details, avoids reading and gets anxious and stressed while reading. Sample does not like to read for fun, but he did share that he likes graphic novels and comic books because he likes the pictures and would like to read comic books and graphic novels about WWE and wrestling if he could find them."

## **Reading Achievement Narrative:**

Sample presented with slightly below expected silent reading fluency abilities and expected phonological decoding, orthographic coding and semantic concepts. This indicates that in the classroom Sample should be able to decode words while reading and does not display characteristics of dyslexia.

Sample's parent and teacher report that reading is challenging for Sample, however standardized assessments indicate Sample's abilities are in the expected range. It is noted that while completing standardized measures, Sample became anxious and would ask repeatedly if he was almost done with the testing. He shared that he does not like reading and would often fidget in his seat while reading silently and would play with paper or a pencil while reading out loud. He read out loud in a soft voice and would frequently slow down reading and read in a non-smooth manner.

## **Summary of Reading Achievement**

Sample's mother and teacher report reading is a challenge for Sample. They report he has difficulty understanding what he's reading and identifying the main ideas of stories, misses important ideas and gets distracted while reading. Sample shared during standardized assessments that he does not like reading and became visibly anxious while reading. Standardized measures indicate that that Sample's silent reading fluency is slightly below the expected range however his ability to decode, his semantic concepts and orthographic coding are in the expected range. In the classroom, Sample should be able to decode words and does not appear to have dyslexia at this time. Sample should be encouraged to find books of high interest to encourage him to read and should be explicitly taught how to find the main topics in a passage and either highlight, underline or write it down.

## Acquired Knowledge: Written Language Achievement

### Written Language Achievement Narrative:

Sample's overall written expression is measured to be in the slightly below expected range as is his essay writing and orthographic spelling. His sentence composition, sentence building and sentence combining is measured to be in the at expected range. This indicates that Sample is able to write meaningful sentences when given a target word and is able to appropriately combine sentences together while retaining the correct information. Sample presented with slight challenges when asked to spell words and when asked to write an essay telling about his favorite game, which he chose to write about wrestling.

### **Qualitative Behaviors for Written Expression Narrative:**

Sample's essay was about wrestling and within his essay, he included a thesis statement, 3 reasons why he likes wrestling, he used transition and linking words and restated the thesis statement in the conclusion. Sample left out a summary of the reasons, facts and details to support the reasons he gave, did not restate the reasons in the conclusion and did not use a paragraph structure. Sample may benefit from a checklist of what to include in essays as well as graphic organizers and visuals to help him structure his paragraphs.

## **Summary of Written Language Achievement**

Sample's mother and teacher reports concerns with Sample's ability to express himself while writing- including his ability to put ideas down on paper and using expressive language while writing. They also reported Sample has difficulty with spelling and poor grammar when writing. Standardized assessments indicate that Sample had some challenges while writing an essay- he included a thesis statement, reasons to support his topic and used transition words, but failed to include a summary of the reasons he chose, did not support each reason with details or facts and struggled with paragraph structure. Standardized measures also indicate that Sample presented with slightly below expected spelling abilities. Sample presented with expected abilities to compose sentences, build sentences using a target word and combine sentences together. In the classroom, this indicates that Sample will be able to create adequate sentences but will have difficulty when asked to elaborate in his writing. Sample will benefit from having a word bank of words to choose from while writing for more descriptive choices, he will benefit from sentence starters, graphic organizers and a checklist of what needs to be included in an essay. Sample should be encouraged to write about topics he finds to be interesting and allowed to engage in free writing with no structure as a way to encourage getting ideas out of his head and down on paper.

## Acquired Knowledge: Mathematics Achievement

#### **Academic Functions: Mathematics Narrative:**

Mrs. Case Says: "Sample's mother and teacher report that Sample has challenges in math. He often forgets what steps to take while solving math equations, he sometimes makes computational errors, can be slow solving math problems, or rushes through and makes careless errors. He has difficulty with story problems and appears anxious while having to do math, avoids math and appears to be

disengaged in math. Sample shared that he does not like math because he has trouble remembering what steps he needs to do and that there's too much to remember. His mother shared that Sample does exceptionally well with money and has great money handling skills. He is quick to figure out how much grocery or restaurant bills will be and is quick to determine what the correct change is."

#### **Mathematics Achievement Narrative:**

Sample displayed slightly below expected abilities in numerical operations and at expected math problem solving. Sample had some challenges when asked to solve math problems, but when he was asked practical math problems, he had more success in answering them correctly. In the classroom, Sample will benefit from having a "cheat sheet" of common math formulas and steps to take while solving math problems. Access to a calculator will be beneficial for Sample as well as allowing him extended time on tests and discouraging the use of timed math tests.

During standardized math assessments, Sample appeared to be anxious while asked to solve math problems. He fidgeted and would become distracted and want to share information not related to math with the examiner. He would frequently ask if he was almost done with math problems and appeared to visibly relax when he completed the math assessments.

#### **Summary of Mathematics Achievement**

Sample's mother and teacher report concerns with Sample's math abilities. They report he has difficulty remembering what steps to take while solving a math problem, makes computational errors and careless errors, story problems are challenging and he can be slow to solve problems. Standardized assessments indicate that Sample's math calculation skills are in the slightly below expected range and his math problem solving of practical math problems are in the expected range.

In the classroom, Sample may benefit from having a paper with common math equations and formulas, steps to take to solve math problems, access to a calculator and extended time on math tests. Sample will not benefit from timed math tests, as these can cause his anxiety which will impact his ability to perform adequately on the tests. Sample may also benefit from repetition of how to solve math equations.

## Social-Emotional Functioning and Adaptive Behaviors

## **Social Perception Narrative:**

Sample's social perception and his ability to take the perspective of others and recognize emotions on faces was measured to be in the at expected range. Sample was able to accurately take others perspectives and identify emotions (happy, sad, neutral, fear, angry, disgust) when shown a picture.

## **Qualitative Behaviors for Social-Emotional Functioning Narrative:**

When compared to peers his own age and peers in a clinical ADHD group, Sample's spontaneous comments were comparable and in the at expected range.

## Behavior Assessment System for Children, Third Edition (BASC-3) - Ratings Narrative:

Sample's mother reports at risk concerns with Sample's anxiety. She reported that Sample often worries, is easily stressed, worries about what teachers think, says he's not good at things, worries about making mistakes and things that can't be changed, says he's afraid of making a mistake and says that tests make him nervous. She also shared that Sample has poor self-talk, he's exposed to high conflict parenting and can get stressed and lost very quickly, has test anxiety, poor reading comprehension skills, doesn't believe in himself and has difficulty expressing himself in any form. She also shared that he is social, friendly, capable, a hard worker, a good listener, flexible, open minded, kind, attentive, sensitive, well spoken, communicates well is aware of what he's feeling, aware of others feelings and tries to please others.

Sample's teacher reports at risk concerns with Sample's attention, learning, and resiliency. She reported that Sample is sometimes easily distracted, often has a short attention span, often makes careless mistakes, sometimes is disorganized and is often distracted from classwork and that he often has spelling problems and keeping up in class and that he sometimes does not complete tests and has some reading problems. She also reported that Sample is creative and engaged and confident when he is interested in the materials being learned.

Sample reports at risk concerns with his sensation seeking, atypicality, locus of control, ego strength and test anxiety. He reports clinically significant concerns with his social stress, anxiety and sense of inadequacy. He indicated that he feels he has a short attention span and he forgets to do things, has trouble paying attention to what he is doing, he is easily distracted and has a hard time concentrating. He also reported that he likes taking risks, likes doing dares, feels like others think he's strange, does things over and over. He noted that he feels like his parents (father) blames too many of his problems on him, things go wrong even when he tries hard, people get mad at him even when he doesn't do anything wrong, his friends have more fun that he does, he feels left out of things, he feels that others seem to ignore him or act as if they don't hear him, he worries a lot the times, he feels stressed, nervous and anxious, feels that he never gets anything right, has trouble thinking while taking tests, fails at things and is disappointed in his grades.

## **Summary of Social-Emotional Functioning and Adaptive Behaviors**

Sample's mother reports concerns with Sample's low self-esteem, negative self-talk, exposure to high conflict parenting and worries that he is often anxious and depressed. Standardized measures indicates that Sample is able to adequately recognize emotions in others and is able to take other people's perspectives. Rating scales given to Sample's mother, teacher and himself indicate concerns mild to clinically significant social emotional concerns as well as numerous social emotional strengths. Sample's mother reports concerns with his anxiety, his teacher reports concerns with his attention, learning and resiliency and Sample reports concerns with his sensation seeking, atypicality, locus of control, ego strength, text anxiety, social stress, anxiety and sense of inadequacy.

Sample has numerous strengths including being social, friendly, capable, a hard worker, a good listener, flexible and open minded, kind and well spoke, aware of his feelings and others and creative.

In the classroom, Sample will benefit from frequent check-ins and frequent positive praise. Sample would be aware of when tests are occurring and Sample may benefit from having a dedicated person on campus to talk to, his case manager, counselor, social worker and school psychologist. Sample will benefit from learning what triggers his anxiety and coping skills to mediate those anxious feelings. He may benefit from receiving school-based counseling and mother may want to consult with Sample's pediatrician regarding outside therapy to address his anxiety.

#### Summary

Sample is a 13 year 11-month old young man currently enrolled at Seven Springs Middle School. He is enrolled in the 7th grade in a general education classroom. Sample was referred for a school neuropsychological evaluation by the IEP team due to continuing concerns with his reading, processing and comprehension in all academic subjects. Despite accommodations including extended time on work, 1:1 teacher help, tutoring and preferential seating, Sample continues to have difficulties in all academic areas with the most difficulty being reported in English Language Arts and Social Studies. His mother and teacher reported that reading and reading comprehension is hard for Sample, as well as remembering and memorizing Social Studies information, math equations and formulas.

Throughout this assessment, Sample displayed numerous strengths. Sample is a smart and capable young man who is described as social, friendly, capable, a good listener, a hard worker, flexible, kind and open-minded Sample shared that he is a good friend and he likes being active and playing sports. He is a responsible young man with animals at home that he takes care of. On standardized measures, Sample displayed strengths with visual scanning, recognizing spatial configurations, discriminating between shapes and visually matching shapes. His auditory processes are well developed and he is able to break words apart and manipulate words and sounds. His verbal memory is at expected levels and he learns information when it's presented verbally and when semantic cues are provided to help him recall previsoulsy learned information. Sample displayed strengths in his ability to articulate and describe abstract concepts and use inductive and deductive reasoning. Sample also displayed well developed self-monitoring skills. Sample displayed adequate and age appropriate sustained and focused attention. When Sample's working memory was assessed, he displayed at expected abilities with his verbal working memory. Sample's semantic memory and acculturation knowledge is in the expected range. Sample's receptive and expressive language is in the expected range for his age. Sample's semantic concepts and orthographic coding is in the expected range and at this time, Sample does not present as a child with dyslexia. In the area of math, Sample demonstrated age-appropriate skills in math problem solving.

With the strengths Sample displayed, in the classroom Sample should be able to utilize manipulatives and complete tasks which require visual discrimination such as math and geometry. Sample will be able to recall information he has just learned when it is presented orally and will be able to recall information when provided with cues. Academics that require inductive and deductive reasoning will be an area Sample should do well in. Sample should be able to sustain attention to classroom discussions and presented materials with no challenges, though chunking of information is beneficial for Sample, as well as all students. Sample should have no difficulties when asked to recall general information he's learned over his lifetime and he should not have difficulty expressing himself verbally, articulating his thoughts and should be able to contribute meaningful information and engage in meaningful dialogue in classroom discussions.

Throughout this assessment, areas of weakness were discovered which impact his classroom performance and abilities. Sample's mother and teacher report concerns with Sample's anxiety, depression, learning and resiliency. Sample shared that he wishes he had a longer attention span because when there is a lot of work in the classroom, he has trouble focusing. Sample also reported concerns with his locus of control, ego strength, social stress, anxiety, test anxiety, and sense of inadequacy. On standardized assessments Sample demonstrated weaknesses with his visual motor integration and visual scanning when paired with motor coordination. He displayed challenges with immediate visual memory as well as with his delayed visual and verbal memory. Sample had difficulty when he was asked to recall information that was presented visually as well as when asked to recall information he had learned both visually and verbally after a period of time had passed. Sample also displayed a weakness in the area of cognitive flexibility. Sample presented with challenged when asked to remember specifically learned rules and apply those rules and parameters to a specific situation or stimuli. When Sample's visual working memory was measured, he displayed below expected abilities. It was hard for Sample to recall information following specific rules, as if remembering the information and applying the learned rules to that information overloaded what he was able to remember and manipulate. Sample presented with challenges in the areas of perceptual fluency and naming fluency as well as challenges with his phonological decoding fluency, morphological decoding fluency, writing fluency and math fluency. Writing is noted to be an area of slight challenge for Sample, especially when asked to write paragraphs. In the area of math, Sample displayed slightly below expected abilities in math calculation.

In the classroom Sample may display challenges when asked to take notes, copy from a book/the board, scan a worksheet or solve math worksheets. Scanning and utilizing motor coordination such as note taking and writing may be challenging. Being asked to recall learned visual information immediately after learning, or recalling information learned either visually or verbally after a period of time will be challenging for Sample. Sample may have trouble shifting his thoughts and cognitive processes from one task to another and he

may have challenges when asked to complete timed tests, remember/recall newly learned rules to apply to problems. Reading informative texts may be challenging for Sample, as he may not retain the information read. Writing essays and solving math problems may also be challenging for Sample. Sample's negative self-talk, anxiety and low self-esteem, may prevent him from asking questions or speaking up in class. This may also prevent him from engaging with classmates during small group activities and reaching out to the teacher with questions.

This report sought to answer the following questions:

- 1. How is Sample's learning disability impacting his academic performance and what interventions can be utilized to support Sample with the level of support he requires?
- 2. Sample presents with weaknesses in the cognitive areas of: visual motor integration, visual scanning when paired with motor coordination; immediate visual memory; delayed visual and verbal memory; cognitive flexibility; visual working memory; perceptual fluency; naming fluency; phonological decoding fluency and morphological fluency; social stress; anxiety; test anxiety and a sense of inadequacy. He displayed academic weaknesses in the following areas: writing fluency; math fluency; writing tasks and math calculations.
- 3. In the classroom Sample may have difficulty when asked to take notes, copy notes from a book or board, scan and solve a worksheet, recall learned visual information, recall learned verbal and visual information after some time has lapsed-such as between class periods or from day to day, shifting thoughts and cognitive processes from one task to another, completing timed tests, remembering and recalling newly learned rules to apply to problems, reading informative texts, writing essays/essay answers and solving math problems. Sample may also have challenges if he needs to ask questions in class, speak up in class, engage in conversations with peers during small group activities and reaching out to the teacher with questions or to clarify something.
- 4. The following interventions may be beneficial to Sample. Pairing of visual and verbal information; semantic cues to help him recall information; repetition of materials to assist with encoding; typing/writing assignments in a planner; checklists of work to be completed; discussions of "why" when presented with new or novel rules; "cheat sheets" of math formulas/equations and writing steps; chunking of information; wait time by teacher for responses; positive encouragement when he speaks up in class, provides dialogue to a class conversation or attempts to respond to a question. Please see intervention strategies below for a complete list of interventions and recommendations for Sample.
- 5. How does Sample's attentional difficulties and possible executive functioning weaknesses impact his classroom performance in all areas of academics?
- 6. Sample presented with average attention, however he presented with weaknesses in his executive functioning. Sample presented with difficulty with his cognitive flexibility when learning new and novel rules and stimuli as well as his ability to cognitively shift between tasks. In the classroom, this will impact him in all areas of academics, as he will have trouble shifting from one thought and task to another as well as any task that requires cognitive flexibility, such as learning new rules and applying those to tasks. For interventions to address executive functioning weaknesses, please see intervention strategies below
- 7. Does Sample present with memory weaknesses and if so, how do these weaknesses impact his ability to learn new information and retain learned information?
- 8. Sample presented with weaknesses in his visual working memory as well as with his immediate visual memory and delayed visual and verbal working memory. In the classroom, this indicates that in all subject areas, Sample will have a difficult time recalling information learned visually as well as recalling information after an elapsed time. For interventions to address memory weaknesses please see intervention strategies below.

## **Diagnostic Impressions**

## Specific Learning Disabilities (SLD):

Federal (a) P.L. 108-476 (IDEIA), Title 34, CFR 300.8(c)(10) Definitions "Specific learning disability" is defined as follows: General. The term means a disorder in one or more of the basic psychological processes involved in understanding or in using language, spoken or written, that may manifest itself in an imperfect ability to listen, think, speak, read, write, spell, or to do mathematical calculations, including conditions such as perceptual disabilities, brain injury, minimal brain dysfunction, dyslexia, and developmental aphasia. Disorders not included. The term does not include learning problems that are primarily the result of visual, hearing, or motor disabilities, of intellectual disabilities, of emotional disturbance, or of environmental, cultural, or economic disadvantage.

(a). California Education Code Section 56337. CCR, Title 5, Section 3030 (b). A specific learning disability exists in students with an Otherwise Normal Cognitive Ability Profile (ONCAP) who possess unexpected underachievement in one or more of the eight achievement areas which is explained by one or more of the domain-specific processing weakness, both of which are outlined in California Ed. Code (CCR Title 5 Section 3030 (j)).

Consistent with California Education Code, the \*\*\*\*\*\* Unified School District Special Local Plan Area (SELPA) has endorsed the use of the Pattern of Strengths and Weaknesses (PSW) model for identifying a Specific Learning Disability (SLD). For students for whom a special education eligibility of SLD is being considered, using the PSW approach, the following is examined:

**Yes** No The student exhibits a pattern of cognitive or processing strengths, indicated by a pattern of abilities in the average or above ranges.

Utilizing a cross battery approach and pattern of strengths and weaknesses, Sample does demonstrate a pattern of processing strengths indicating an otherwise normal cognitive ability profile.

**Yes** No The student exhibits both significant cognitive and academic weakness(es).

Specify academic area(s): Oral Expression Listening Comprehension Written Expression (yes) Basic Reading Skills Reading Fluency (yes) Reading Comprehension Mathematical Calculation (yes) Mathematical Reasoning/Problem Solving

Specify cognitive area(s): Attention/Concentration (may include ADHD) **Visual Processing/Orthographic Awareness (yes)** Auditory Processing/Phonological Processing Sensory Motor Skills

## Cognitive Abilities, including (yes): Association (yes) Conceptualization (yes) Expression Memory (yes)

Yes No A research-based link exists between the cognitive and academic weakness(es).

Based on a review of existing literature of the most likely psychological processes involved in each area of academic achievement, the following indicates a relationship between the processing deficit and academic area. Evidence of a research-based link exists between the following processing areas and academic weaknesses:

- Memory: written expression; reading fluency; mathematical calculation
- Visual Processing (Visual Scanning): written expression; reading fluency; mathematical calculation
- Association/Conceptualization: written expression; reading fluency; mathematical calculation

Yes No The student requires special education to access the core curriculum.

Additional considerations for Specific Learning Disability eligibility:

- Yes No Lack of progress is due primarily to limited school experience or poor school attendance.
- Yes No Lack of progress is due primarily to environmental or cultural differences or economic factors.
- Yes No Lack of progress is due primarily to intellectual disabilities or emotional disturbance.
- Yes No Lack of progress is due primarily to a visual, hearing, or motor disability.
- Yes No Lack of progress is due primarily to limited English proficiency.
- Yes No Lack of progress can be corrected through other regular or categorical services offered within the regular instructional program.
- Yes No Lack of progress is due to a lack of appropriate instruction.

**Discussion:** Based on the data that was gathered, it is reasonable to conclude that one of more of the above exclusionary factors do not greatly contribute to the student's observed learning difficulties. Based on the information indicated above, Sample DOES appear to meet the eligibility requirements for special education under the classification of Specific Learning Disability using the Pattern of Strengths and Weaknesses (PSW) Model due to processing deficits in the areas of Visual Processing, and Cognitive Abilities, specifically-Association and Conceptualization.

Final special education eligibility will be an IEP team decision.

## DSM-5: Specific Learning Disorder in Reading (315.00), Written Expression (315.2), and Mathematics (315.1)

A. Difficulties learning and using academic skills, as indicated by the presence of at least one of the following symptoms that have persisted for at least 6 months, despite the provision of interventions that target those difficulties:

- 1. Inaccurate or slow and effortful word reading.
- 2. Difficulty understanding the meaning of what is read.
- 3. Difficulties with spelling.
- 4. Difficulties with written expression.
- 5. Difficulties mastering number sense, number facts, or calculation.
- 6. Difficulties with mathematical reasoning.
- B. The affected academic skills are substantially and quantifiably below those expected for the individual's chronological age, and cause significant interference with academic or occupational performance, or with activities of daily living, as confirmed by individually administered standardized achievement measures and comprehensive clinical assessment.
- C. The learning differences begin during school-age years but may not become fully manifest until the demands for those affected academic skills exceed the individual's limited capacities.

D. The learning difficulties are not better accounted for by intellectual disabilities, uncorrected visual or auditory acuity, other mental or neurological disorders, psychological adversity, lack of proficiency in the language of academic instruction, or inadequate educational instruction.

**Discussion:** Sample presents with a Specific Learning Disorder with impairments in reading (reading fluency and reading comprehension; 315.00) with mild symptoms, written expression (spelling, content generation and punctuation accuracy; 315.2) with mild symptoms, and mathematics (memorization of arithmetic facts and accurate or fluent calculation; 315.1) with mild symptoms.

## Generalized Anxiety Disorder 300.02 (F41.1)

- A. Excessive anxiety and worry (apprehensive expectation), occurring more days than not for at least 6 months, about a number of events or activities (such as work or school performance).
- B. The individual finds it difficult to control the worry.
- C. The anxiety and worry are associated with three (or more) of the following 6 symptoms (with at least some symptoms having been present for more days than not for the past 6 months):
  - 1. Restlessness, feeling keyed up or on edges.
  - 2. Being easily fatigued.
  - 3. Difficulty concentrating or mind going blank.
  - 4. Irritability.
  - 5. Muscle tension.
  - 6. Sleep disturbance (difficulty falling or staying asleep, or restless, unsatisfying sleep).
- D. The anxiety, worry, or physical symptoms cause clinically significant distress or impairment in social, occupational, or other important areas of functioning.
- E. The disturbance is not attributable to the physiological effects of a substance (e.g., drug of abuse, a medication) or another medical condition (e.g., hyperthyroidism).
- F. The disturbance is not better explained by another medical disorder (e.g., anxiety or worry about having panic attacks in panic disorder, negative evaluation in social anxiety disorder [social phobia], contamination or other obsession in obsessive-compulsive disorder, separating from attachment figures in separation anxiety disorder, reminders of traumatic events in posttraumatic stress disorder, gaining weight in anorexia nervosa, physical complaints in somatic symptoms disorder, perceived appearance flaws in body dysmorphic disorder, having a serious illness in illness anxiety disorder, or the content of delusional beliefs in schizophrenia or delusional disorder.

**Discussion:** Sample presents with Generalized Anxiety Disorder. Sample reports anxiety and worry which has been prevalent for longer than 6 months. The presented anxiety and worry is related to school, his school performance and tests. Sample presents with restlessness, fatigue and difficulty concentrating as reported by Sample and his mother.

## **Intervention Strategies and Recommendations**

#### **Recommendations for the School**

- 1. To improve Sample's Learning and Memory:
  - a. Utilize multiple modalities when teaching new concepts to facilitate verbal/nonverbal encoding. Use consistent instructional routines to help the student organize information to optimize encoding. Use pictures to help form associations. Activate prior knowledge when teaching new information. Use imagery to facilitate learning of new material. Provide repetition and review of new content to aid in retention. Pairing visual with verbal information. Providing semantic cues. Providing repetition of new materials.
- 2. To improve Sample's Cognitive Flexibility:
  - a. Encourage verbal discussion of different topics within the classroom to promote verbal cognitive flexibility and expose students to varying views and divergent thinking patterns. Utilize verbal games for the improvement of cognitive flexibility (Veranda & Fernandez 2017). Provide opportunities for collaborative groups, inquiry, trial and error, and discovery within the classroom.
- 3. To improve Sample's Reading Skills:
  - a. Sample should be encouraged to find books of high interest to encourage him to read and should be explicitly taught how to find the main topics in a passage and either highlight, underline or write it down.
- 4. To improve Sample's Writing Skills:
  - a. Sample will benefit from having a word bank of words to choose from while writing for more descriptive choices, he will benefit from sentence starters, graphic organizers and a checklist of what needs to be included in an essay. Sample should be encouraged to write about topics he finds to be interesting and allowed to engage in free-writing with no structure as a way to encourage getting ideas out of his head and down on paper.
- 5. To improve Sample's Math Skills:
  - a. Explicitly teach math strategies; provide common math equations/formulas; use of a calculator; math problem solving steps; extended time on math tests and homework.
- 6. To improve Sample's Social-Emotional Functioning (Anxiety):

a. Encourage coping skills to manage anxiety symptoms. Have Sample seek out support form the school psychologist or guidance counselor. Encourage taking a break. Encourage problem solving. Have Sample engage in an enjoyable activity.

#### **Recommendations for the Home**

- 1. To improve Sample's Learning and Memory:
  - a. Utilize multiple modalities when teaching new concepts to facilitate verbal/nonverbal encoding. Use consistent instructional routines to help the student organize information to optimize encoding. Use pictures to help form associations. Activate prior knowledge when teaching new information. Use imagery to facilitate learning of new material. Provide repetition and review of new content to aid in retention. Pairing visual with verbal information. Providing semantic cues. Providing repetition of new materials.
- 2. To improve Sample's Executive Functions (Cognitive Flexibility):
  - a. Encourage verbal discussion of different topics within the classroom to promote verbal cognitive flexibility and expose students to varying views and divergent thinking patterns. Utilize verbal games for the improvement of cognitive flexibility (Veranda & Fernandez 2017). Provide opportunities for collaborative groups, inquiry, trial and error, and discovery within the classroom.
- 3. To improve Sample's Reading Skills:
  - a. Sample should be encouraged to find books of high interest to encourage him to read and should be explicitly taught how to find the main topics in a passage and either highlight, underline or write it down.
- 4. To improve Sample's Writing Skills:
  - a. Sample will benefit from having a word bank of words to choose from while writing for more descriptive choices, he will benefit from sentence starters, graphic organizers and a checklist of what needs to be included in an essay. Sample should be encouraged to write about topics he finds to be interesting and allowed to engage in free writing with no structure as a way to encourage getting ideas out of his head and down on paper.
- 5. To improve Sample's Math Skills:
  - a. Explicitly teach math strategies; provide common math equations/formulas; use of a calculator; math problem solving steps; extended time on math tests and homework.
- 6. To improve Sample's Social-Emotional Functioning (Anxiety):
  - a. Encourage coping skills to manage anxiety symptoms. Have Sample seek out support form the school psychologist or guidance counselor. Encourage taking a break. Encourage problem solving. Have Sample engage in an enjoyable activity. Consult with pediatrician on the possibility of an outside therapist's support.

#### **Recommendations for the Student**

- 1. To improve Sample's Learning and Memory:
  - a. Utilize multiple modalities when teaching new concepts to facilitate verbal/nonverbal encoding. Use consistent instructional routines to help the student organize information to optimize encoding. Use pictures to help form associations. Activate prior knowledge when teaching new information. Use imagery to facilitate learning of new material. Provide repetition and review of new content to aid in retention. Pairing visual with verbal information. Providing semantic cues. Providing repetition of new materials.
- 2. To improve Sample's Executive Functions (Cognitive Flexibility):
  - a. Encourage verbal discussion of different topics within the classroom to promote verbal cognitive flexibility and expose students to varying views and divergent thinking patterns. Utilize verbal games for the improvement of cognitive flexibility (Veranda & Fernandez 2017). Provide opportunities for collaborative groups, inquiry, trial and error, and discovery within the classroom.
- 3. To improve Sample's Reading Skills:
  - a. Find books of high interest read and you should be explicitly taught how to find the main topics in a passage and either highlight, underline or write it down.
- 4. To improve Sample's Writing Skills:
  - a. A word bank of words to choose from while writing for more descriptive choices, utilize teacher provided sentence starters, graphic organizers and a checklist of what needs to be included in an essay. Journal about topics you find to be interesting and engage in free writing with no structure as a way to encourage getting ideas out of your head and down on paper.
- 5. To improve Sample's Math Skills:
  - a. Explicitly teach math strategies; provide common math equations/formulas; use of a calculator; math problem solving steps; extended time on math tests and homework.
- 6. To improve Sample's Social-Emotional Functioning (Anxiety):
  - a. Identify anxiety triggers, find coping skills to manage anxiety symptoms, eek out support from the school psychologist or guidance counselor. Take a break when feeling overwhelmed or frustrated. Find and engage in enjoyable activities.
- 1. sdfsd
- 2. sdfsd
  - a. sdfsdf
  - b. sdfsdf
  - c. sdfsd
- 3. asdfasdf
- 4. asdfsd

Signature Date

# **APPENDIX**

## **Test Observations and Related Assessment Validity**

Behavior Assessment System for Children, Third Edition (BASC-3) - Validity											
Validity Indices	Parent	Teacher	Self-Report								
F Index (Faking Bad)	M (Acceptable)	T (Acceptable)	S (Acceptable)								
Pattern Response Index	M (Acceptable)	T (Acceptable)	S (Acceptable)								
Consistency Index	M (Acceptable)	T (Acceptable)	S (Acceptable)								
L Scale (Faking Good)			S (Acceptable)								
V Scale (Carless Responding)			S (Acceptable)								

Behavior Rating Inventory of Executive Function, Second Edition (BRIEF2) - Validity										
Validity Indices Parent Teacher Self-Report										
Negativity	$M (\le 98 - Acceptable)$	T (≤ 98 - Acceptable)	$S (\leq 98 - Acceptable)$							
Inconsistency	$M (\le 98 - Acceptable)$	T (≤ 98 - Acceptable)	$S (\leq 98 - Acceptable)$							
Infrequency	M (99 - Acceptable)	T (99 - Acceptable)	S (99 - Acceptable)							

Wide Range Assessment of Memory and Learning, Third Edition (WRAML3) - Validity						
Validity Scale	Validity Indicator Score					
Attention/Concentration Index	Acceptable					
Recognition Raw Score Total	Acceptable					
Validity Indicator Total	Acceptable					

## **Basic Sensorimotor Functions**

Sensorimotor Functions NPCC-3	Severe	Moderate	Mild	<b>Not Observed</b>			
Basic Sensory Deficits							
Difficulty with pitch discrimination (tone deaf).				M T			
Difficulty with simple sound discrimination.				M T			
Known or suspected hearing acuity problems.				ΜT			
Difficulty identifying basic colors (color blind).				ΜT			
Difficulty smelling or tasting foods.				M T			
Less sensitive to pain and changes in temperature.				ΜT			
Complains of loss of sensation (i.e., numbness).				ΜT			
Motor Functioning Difficulties							
Muscle weakness or paralysis: M (Not Observed ) T (Not Observed )				M T			
Muscle tightness or spasticity: M (Not Observed ) T (Not Observed )				M T			
Clumsy or awkward body movements: M (Not Observed ) T (Not Observed )				M T			
Walking or posture difficulties.				M T			
Visual Motor Functioning Difficulties							
Difficulties with drawing or copying.				M T			
Difficulties with fine motor skills (i.e., using a pencil).				M T			
Neurologically Related Sensorimotor Symptoms							
Displays odd movements (i.e., hand flapping, toe walking).				ΜT			
Displays involuntary or repetitive movements.				M T			
Ignores one side of the page while drawing or reading.				M T			
Difficulty with dressing (i.e., buttoning and zippering).							
Sensory Sensitivity Issues							
Does not like loud noises.				ΜT			
Overly sensitive to touch, light, or noise.				M T			

## **Fine Motor Functions**

Instrument – Subtest: Description	Well Below Expected	Below Expected	Slightly Below Expected	At Expected	Above Expected	Well Above Expected	Superior
C	oordinated F	inger/Hand	Movements				
<b>NEPSY-II Fingertip Tapping Dominant Hand</b>							
<b>Combined:</b> Dominant hand completion time for				(10)			
two fine motor tasks.							
NEPSY-II Fingertip Tapping Nondominant							
Hand Combined: Nondominant hand				(9)			
completion time for two fine motor tasks.							
• Repetitions Combined: Dominant and							
nondominant hands combined for				(8)			
fingertip tapping tasks.							
<ul> <li>Sequences Combined: Dominant and</li> </ul>							
nondominant hands combined for				(11)			
fingertip sequencing tasks.							

Visual-Motor Integration Skills											
Instrument – Subtest: Description	Well Below	Below	<b>Slightly Below</b>	At	Above	Well Above Expected	Suporior				
Instrument – Subtest. Description	Expected	Expected	Expected	<b>Expected</b>	Expected	Expected	Superior				
	Visu	al-Motor Co	opying Skills								
VMI (6th ed.) Total: Copying simple to			86								
complex designs on paper.			(78-94)								
Visual Perception: Visual			85								
perception aspects of the task.			(75-95)								
Motor Coordination: Motor			89								
coordination aspects of the task.			(79-99)								

	Visual	Scanning / T	<b>Fracking</b>				
Instrument – Subtest: Description	Well Below Expected	Below Expected	Slightly Below Expected	At Expected	Above Expected	Well Above Expected	Superior
Indi	rect Measure	s of Visual S	Scanning/Trac	cking			
<b>NEPSY-II Picture Puzzles Total:</b> Ability to identify the location of smaller pictures taken from a larger picture.				(8) (6-10)			
WISC-V Coding: Symbols that are paired with simple geometric shapes or numbers are copied within a specified time limit.		(4) (2-6)					
WISC-V Symbol Search: Visual scanning a group of stimuli to match target symbols.				(8) (6-10)			

Tapping (Age Comparison)  Visual Guidance: Looking at fingers during the performance of task  NEPSY-II Fingertip Tapping (Age Comparison)  Incorrect Position: Wrong position of fingers  NEPSY-II Fingertip Tapping (Age Comparison)  Posturing: Finger/hand on opposite side extended stiffly  NEPSY-II Fingertip Tapping (Age No Standardization Sample Base Rate 15%  Standardization Sample Base Rate 10%	Qualitative Behaviors for Sensorimotor Functions												
Rate Change: Variable speed and tempo during performance of task  NEPSY-II Fingertip Tapping (Age Comparison)  Visual Guidance: Looking at fingers during the performance of task  NEPSY-II Fingertip Tapping (Age Comparison)  Incorrect Position: Wrong position of fingers  No Standardization Sample Base Rate 57%  Standardization Sample Base Rate 15%  Standardization Sample Base Rate 15%  Posturing: Finger/hand on opposite side extended stiffly  No Standardization Sample Base Rate 10%  Standardization Sample Base Rate 10%  Standardization Sample Base Rate 10%  Standardization Sample Base Rate 10%			ved: Well Below   Below   Slightly Below   At   Above   Well Above   Supe										
NEPSY-II Fingertip Tapping (Age Comparison)  Visual Guidance: Looking at fingers during the performance of task  NEPSY-II Fingertip Tapping (Age Comparison)  Incorrect Position: Wrong position of fingers  No Standardization Sample Base Rate 57%  Standardization Sample Base Rate 15%  Tapping (Age Comparison)  Posturing: Finger/hand on opposite side extended stiffly  NEPSY-II Fingertip Tapping (Age Comparison)  Standardization Sample Base Rate 10%	Description							Expected	Superior				
Tapping (Age Comparison)  Visual Guidance: Looking at fingers during the performance of task  NEPSY-II Fingertip Tapping (Age Comparison)  Incorrect Position: Wrong position of fingers  NEPSY-II Fingertip Tapping (Age Comparison)  Posturing: Finger/hand on opposite side extended stiffly  NEPSY-II Fingertip Tapping (Age Comparison)  Standardization Sample Base Rate 15%  Standardization Sample Base Rate 10%  Standardization Sample Base Rate 10%  Standardization Sample Base Rate 10%													
Comparison)  Visual Guidance: Looking at fingers during the performance of task  NEPSY-II Fingertip Tapping (Age Comparison)  Incorrect Position: Wrong position of fingers  NEPSY-II Fingertip Tapping (Age Comparison)  Posturing: Finger/hand on opposite side extended stiffly  NEPSY-II Fingertip Tapping (Age Comparison)  Standardization Sample Base Rate 15%  Standardization Sample Base Rate 10%	NEPSY-II Fingertip												
Visual Guidance: Looking at fingers during the performance of task   NEPSY-II Fingertip Tapping (Age   No   Standardization Sample Base Rate 57%	Tapping (Age					26 - 75%							
NEPSY-II Fingertip Tapping (Age Comparison)  Incorrect Position: Wrong position of fingers  NEPSY-II Fingertip Tapping (Age Comparison)  Posturing: Finger/hand on opposite side extended stiffly  NEPSY-II Fingertip Tapping (Age No Standardization Sample Base Rate 15%  Standardization Sample Base Rate 10%	Comparison)												
Tapping (Age		Visual Guio	dance: Lookin	g at fingers	during the perf	ormance o	f task						
Comparison)  Incorrect Position: Wrong position of fingers  NEPSY-II Fingertip Tapping (Age No Standardization Sample Base Rate 15%  Comparison)  Posturing: Finger/hand on opposite side extended stiffly  NEPSY-II Fingertip Tapping (Age No Standardization Sample Base Rate 10%  Comparison)	NEPSY-II Fingertip												
Incorrect Position: Wrong position of fingers   NEPSY-II Fingertip   No   Standardization Sample Base Rate 15%	Tapping (Age	No		S	Standardization S	Sample Base	e Rate 57%						
NEPSY-II Fingertip Tapping (Age No Standardization Sample Base Rate 15% Comparison)  Posturing: Finger/hand on opposite side extended stiffly  NEPSY-II Fingertip Tapping (Age No Standardization Sample Base Rate 10% Comparison)	Comparison)												
Tapping (Age No Standardization Sample Base Rate 15%  Comparison)  Posturing: Finger/hand on opposite side extended stiffly  NEPSY-II Fingertip Tapping (Age No Standardization Sample Base Rate 10%  Comparison)													
Comparison)  Posturing: Finger/hand on opposite side extended stiffly  NEPSY-II Fingertip Tapping (Age No Standardization Sample Base Rate 10%  Comparison)	NEPSY-II Fingertip												
Posturing: Finger/hand on opposite side extended stiffly  NEPSY-II Fingertip Tapping (Age No Standardization Sample Base Rate 10%  Comparison)	Tapping (Age	No	No Standardization Sample Base Rate 15%										
NEPSY-II Fingertip Tapping (Age No Standardization Sample Base Rate 10% Comparison)	Comparison)												
Tapping (Age    No    Standardization Sample Base Rate 10%      Comparison)		Postu	ıring: Finger/l	hand on opp	osite side exten	ded stiffly							
Comparison)	NEPSY-II Fingertip												
	Tapping (Age	No	Standardization Sample Base Rate 10%										
Mirroring: Fingers on opposite side move	Comparison)												
NEPSY-II Fingertip	NEPSY-II Fingertip												
Tapping (Age   No   Standardization Sample Base Rate 5%	Tapping (Age	No			Standardization	Sample Bas	e Rate 5%						
Comparison)	Comparison)												
Overflow: The lips or mouth move involuntarily		C	Overflow: The	lips or mou	th move involu	ntarily							

NEPSY-II Fingertip Tapping (Age Comparison)	No	Standardization Sample Base Rate 7%					
		Visuomotor Precision					
NEPSY-II Quality of		Matura					
Pencil Grip		Mature					
NEPSY-II Quality of							
Pencil Grip (Age		Standardization Sample Base Rate 87%					
Comparison)							

# Cognitive Processes: Visuospatial

Visuospatial Functions	Severe	Moderate	Mild	Not Observed
Confusion with directions (i.e., gets lost easily)				ΜT
Shows right-left confusion or directions (i.e., up-down)				ΜT
Difficulties with putting puzzles together				ΜT

	Visuosp	atial Perce	ption				
Instrument – Subtest: Description	Well Below Expected	Below Expected	Slightly Below Expected	At Expected	Above Expected	Well Above Expected	Superior
	Overall V	isuospatial	Indices				
TVPS-4 Overall Index			80 (74-86)				
Visual	Discriminati	ion and Spa	tial Localizat	tion			
<b>FAR Visual Perception:</b> Ability to identify letters printed backwards from an array of letters or from an array of words.	65 (57-73) <sup>1</sup>						
<b>NEPSY-II Picture Puzzles Total:</b> Ability to identify the location of smaller pictures taken from a larger picture.				(8) (6-10)			
<b>TVPS-4 Visual Discrimination:</b> Matching a target design among a set of designs on the same page.			(7) (5-9)				
	Visual-Mo	otor Constr	uctions				
NEPSY-II Block Construction Total: Reproducing 3-dimensional constructions from models or 2-dimensional drawings under time constraints.				(11) (9-13)			
WISC-V Block Design: Re-creation of a constructed model or a picture of a block design within a specified time limit.				(10) (8-12)			

<sup>&</sup>lt;sup>1</sup> Based on grade norms not age norms.

Visuospatial Reasoning										
Instrument – Subtest: Description	Well Below Expected	Below Expected	Slightly Below Expected	At Expected	Above Expected	Well Above Expected	Superior			
	Recognizin	g Spatial C	onfigurations							
<b>TVPS-4 Spatial Relationships:</b> Choosing one design that is different from the rest.				(10) (8-12)						
WISC-V Visual Puzzles: Identify two or more pieces that go together to form a complete target shape.				(12) (10-14)						
	Visu	al Gestalt (	Closure							
<b>TVPS-4 Visual Figure-Ground:</b> Finding one design among many within a complex background.				(11) (9-13)						
TVPS-4 Visual Closure: Matching an incomplete pattern with a completed design.				(10) (8-12)						
Visuosp	atial Analyses	with and w	ithout Mental	Rotations		•				

NEPSY-II Geometric Puzzles Total: Ability to match two shapes outside of a grid to two shapes within a grid.		(9) (7-11)		
TVPS-4 Form Constancy: Finding a design		(12)		
embedded within another object.		(10-14)		

Qualitative Behaviors for Visuospatial Processes							
Instrument – Subtest: Description Standardization Sample Base Rate							
WISC-V Pairwise Di	WISC-V Pairwise Difference Comparisons						
Block Design Dimension Errors	25%						
Block Design Rotation Errors	15%						

# Cognitive Processes: Auditory/Phonological

Auditory/Phonological Functions	Severe	Moderate	Mild	Not Observed
Difficulty with sound discrimination.				ΜT
Difficulty with blending of sounds to form words.				ΜT
Difficulty with basic rhyming activities.				ΜT
Omits sounds when reading or speaking.				M T
Substitutes sounds when reading or speaking.				M T

A	uditory/Pho	nological P	rocesses				
Instrument – Subtest: Description	Well Below Expected		Slightly Below Expected	At Expected	Above Expected	Well Above Expected	Superior
	Auditory	/Phonologi	cal				
CTOPP2 Phonological Awareness Composite (ages 7-24): Combined score for Blending Words, Elision, and Phoneme Isolation				107 (100-114)			
Blending Words: Listening to words in small parts and blending the parts together to make a whole word.				(12) (10-14)			
Elision: Omitting a phoneme from a word to create a new word.				(9) (7-11)			
<ul> <li>Phoneme Isolation: Ability to isolate individual sounds within words.</li> </ul>				(10) (8-12)			
Blending Nonwords: Ability to synthesize sounds to form nonwords.				(12) (10-14)			
<b>FAR Phonemic Awareness:</b> A series of four tasks (Rhyming, Blending, Segmenting, & Manipulation) measuring phonemic awareness and processing skills.					115 (109- 121) <sup>1</sup>		
<b>FAR Positioning Sounds:</b> Ability to determine the missing sound(s) in an incomplete word.			87 (80-94)1				
WIAT-4 Phonemic Proficiency: Measures the development phonological/phonemic skills.				102 (95-109)			

 $<sup>^{\</sup>rm 1}\,\mathrm{Based}$  on grade norms not age norms.

# Cognitive Processes: Learning and Memory

Learning and Memory Functions	Severe	Moderate	Mild	Not Observed
General Learning Efficiency				
Difficulty learning new verbal information.		T	M	
Difficulty learning new visual information.		T	M	
Difficulty integrating verbal and visual information.			ΜT	
Long-Term Memory Difficulties				
Forgets where personal items or schoolwork were left.			T	M
Forgets to turn in homework assignments.			T	M
Forgets what happens days or weeks ago.				ΜT
Does well on daily assignments but does not do well on end of the week quizzes.		T	M	
Limited knowledge of basic facts for places, events, and people.				ΜT

		WRAML3	<b>Memory Indices</b>				
Instrument – Subtest: Description	Well Below Expected	Below Expected	Slightly Below Expected	At Expected	Above Expected	Well Above Expected	Superior
General Immediate Memory Index:			86 (84-88)				
• Visual Immediate Memory Index		76 (74-78)					
• Verbal Immediate Memory Index				100 (98-102)			
General Delayed Index:		71 (69-73)					
• Visual Delayed Index		79 (77-81)					
Verbal Delayed Index		79 (68-72)					
General Recognition Index:				92 (90-94)			
<ul> <li>Visual Recognition Index</li> </ul>			88 (86-90)				
<ul> <li>Verbal Recognition Index</li> </ul>				100 (98-102)			
Working Memory Index			80 (78-82)				

	Rat	te of Learni	ng				
Instrument – Subtest: Description	Well Below Expected	Below Expected	Slightly Below Expected	At Expected	Above Expected	Well Above Expected	Superior
		rbal Learni	ng				
<b>WRAML3 Verbal Learning:</b> Learning a list of words over repeated trials.					(14)		
<ul> <li>Learning Slope: An indicator of the rate of learning. The change in the number correct from the first to the last trials.</li> </ul>		Stan	dardization S	ample Base	$Rate = \leq 15$	%	
• <b>Intrusions:</b> Words not on the list that are recalled.		Stan	dardization S	ample Base	$Rate = \leq 15$	%	
• <b>Repetitions:</b> Words repeated from one trial to another.		Stan	dardization S	ample Base	$Rate = \le 15$	%	
Primacy Effect: Tendency to recall the first few words presented in the list.		Stan	dardization S	ample Base	$Rate = \leq 15$	%	
Recency Effect: Tendency to recall the last few words presented in the list.			dardization S	ample Base	$Rate = \leq 15$	%	
	Vis	sual Learnii	ıg	1		1	
WRAML3 - Design Learning: Redraw geometric shapes in proper locations after a brief visual exposure, over repeated trials.		(5)					
Learning Slope (Trial 1 - Trial 4):     An indicator of the rate of learning.     The change in the number correct from the first to the last trials.		Stan	dardization S	ample Base	$Rate = \leq 15$	%	
<ul> <li>Upper Left Quadrant Total: The amount of information accurately recalled in the upper left quadrant.</li> </ul>		Stan	dardization S	ample Base	$Rate = \leq 15$	%	
Upper Right Quadrant Total: The amount of information accurately recalled in the upper right quadrant.	Standardization Sample Base Rate = ≤ 15%						
• Lower Left Quadrant Total: The amount of information accurately recalled in the lower left quadrant.	Standardization Sample Base Rate = ≤ 15%						
Lower Right Quadrant Total: The amount of information accurately recalled in the lower right quadrant.		Stan	dardization S	ample Base	$Rate = \leq 15$	%	



Immediate Verbal Memory										
Instrument – Subtest: Description	Well Below Expected	Below Expected	Slightly Below Expected	At Expected	Above Expected	Well Above Expected	Superio			
Number Recall (No Contextual Cues)										
CTOPP-2 Phonological Memory Composite				101						
(ages 7-24): Combined score for Memory for				(91-111)						
Digits and Nonword Repetition.				(91-111)						
<ul> <li>Memory for Digits: Repeating</li> </ul>				(10)						
increasingly long series of digits.				(8-12)						
<ul> <li>Nonword Repetition: Ability to repeat</li> </ul>				(10)						
nonwords accurately.				(8-12)						
WRAML3 Number Letter: Repeating										
auditorily presented number/letter strings of				(9)						
increasing length.										
WISC-V Digit Span: Repeating auditorily				(9)						
presented digits of increasing length forwards				(7-11)						
and backwards.				` ′						
• <b>Digits Forward:</b> Repeating auditorily				(8)						
presented digits of increasing length.				(6-10)						
	Word Recal	(No Conte	xtual Cues)	1		•	1			
FAR Word Recall: Immediate recall of a list of				109 (99-						
words over two trials.				119) <sup>1</sup>						
NEPSY-II Word List Interference				(8)						
Repetition: Repeating an initial string of				(6-10)						
unrelated words.				(0 10)		1	1			
TAPS-4 Word Memory: Ability to retain and				(11)						
manipulate simple sequences of auditory				(9-13)						
information.				` ′						
	entence Reca	ll (with Con	textual Cues			ı	1			
TAPS-4 Sentence Memory: Memory for				(9)						
sentences of increasing length and complexity.				(7-11)						
WIAT-4 Oral Expression: Sentence				110						
<b>Repetition:</b> Repeating sentences of increasing				(101-119)						
length.				,						
WRAML3 Sentence Memory: Memory for				(8)						
sentences of increasing length and complexity.	Ct D	(				<u> </u>				
	Story Recall	,	extual Cues)							
NEPSY-II Narrative Memory Free Recall:		(5)								
Details recalled from orally presented stories.		(2-8)								

Free & Cued Recall: Details recalled freely and with cues from orally presented stories.	(6) (4-8)			
WRAML3 Story Memory: Recalling orally presented story details.	(6)			
• Story C: Recalled details from story C.	(6)			
• Story D: Recalled details from story D.	(6)			
Verbatim Total: Exact story details recalled.	(7)			
Gist Total: General ideas of story details recalled.		(9)		

<sup>&</sup>lt;sup>1</sup> Based on grade norms not age norms.

Qualitative Behaviors for Immediate Verbal Memory							
Instrument – Subtest: Description Standardization Sample Base Rate							
WISC-V Longest Digit Span Forward	94%						

	Immediat	e Visual Me	emory				
Instrument – Subtest: Description	Well Below Expected	Below Expected	Slightly Below Expected	At Expected	Above Expected	Well Above Expected	Superior
Abstract Desig	ns with Mot	or Response		tual Cues)			•
<b>NEPSY-II Memory for Designs Total:</b> Placing elements of an abstract design into a grid after briefly looking at an abstract design.			(6) (4-8)				
Content: Correctly identifying design elements.			(7) (4-10)				
Spatial: Correctly identifying spatial location of design elements.		(5) (2-8)					
Abstract Desig	ns with Verb	al Respons	e (no Contex	tual Cues)		1	
TVPS-4 Sequential Memory: Identifying a previously seen design sequence embedded in a set of similar design sequences designs.			(6) (3-9)				
<b>TVPS-4 Visual Memory:</b> Identifying previously seen abstract designs embedded in a set of similar abstract designs.		(4) (1-7)					
Faces with Ver	bal or Pointi	ng Respons	e (no Contex	tual Cues)			
NEPSY-II Memory for Faces Total Score: Picking out faces from many faces that were previously seen.			(7) (4-10)				
Spatial Location	ns with Mot	or Respons	e (no Contex	tual Cues)			1
WRAML3 Finger Windows: Using a finger to repeat a visual pattern of increasing length.				(9)			
	e or Symbol	ic (with Co	ntextual Cue	<u>s)</u>		T	1
WRAML3 Picture Memory: Detecting changes in specific features or details within four scenes after a brief visual exposure to original scenes.			(7)				
Commission Errors: Chosen details in the pictures that did not change.				≤5%			

	Delayed	Verbal Me	mory						
Instrument – Subtest: Description	Well Below Expected	Below Expected	Slightly Below Expected	At Expected	Above Expected	Well Above Expected	Superior		
Delayed	Verbal Reca	all (without	<b>Contextual C</b>	Cues)					
<b>WRAML3 Verbal Learning Delayed:</b> Number of correct words recalled from list after delay.			(7)						
Delaye	ed Verbal Re	call (with C	ontextual Cu	ies)					
<b>WRAML3 Story Memory Delayed:</b> Number of correct story details recalled after delay.	(3)								
Delayed Vo	Delayed Verbal Recognition (without Contextual Cues)								
WRAML3 Verbal Learning Recognition: Number of words correctly recognized as being on the original learned list of words.				(11)					

• Semantic Errors: Incorrect recall of words that are similar in meaning (e.g., "car" instead of "truck").	Standardization Sample Base Rate = ≤ 15%						
• Phonological Errors: Incorrect recall of words that sound alike (e.g., "hat" instead of "cat").	Standardization Sample Base Rate = ≤ 15%						
Delayed V	Verbal Recog	gnition (wit	h Contextual	Cues)			
WRAML3 Story Memory Recognition:							
Number of story details recalled with additional				(9)			
multiple-choice cues.							

	Delayed Visual Memory											
Instrument – Subtest: Description	Well Below Expected	Below Expected	Slightly Below Expected	At Expected	Above Expected	Well Above Expected	Superior					
Delayed Visual Recall (without Contextual Cues)												
<b>NEPSY-II Memory for Faces Delayed Total:</b>			(7)									
Delayed recall of previously learned target			(4-10)									
faces.			(4-10)									
NEPSY-II Memory for Designs Delayed		(5)										
<b>Total:</b> Delayed recall of abstract designs.		(2-8)										
• Delayed Content: Delayed recall of			(6)									
design elements.			(4-8)									
• <b>Delayed Spatial:</b> Delayed recall of	(3)											
spatial location of design elements.	(1-5)											
WRAML3 Design Learning Delayed:												
Redrawing geometric shapes in proper			(7)									
locations after a delay.												
	yed Visual R	ecall (with (	Contextual C	ies)			T					
WRAML3 Picture Memory Delayed:												
Correctly identifying pictures that appeared in			(6)									
the original stimuli.												
	Visual Recog	nition (with	out Contextu	al Cues)			T					
WRAML3 Design Learning Recognition:												
Correctly identifying designs that appeared in				(11)								
the original stimuli.												
-	Delayed Visual Recognition (with Contextual Cues)											
WRAML3 Picture Memory Recognition:												
Correctly identifying portions of pictures that		(5)										
appeared in the original stimuli.												

Verb	Verbal-Visual Associative Learning and Recall										
Instrument – Subtest: Description	Well Below Expected	Below Expected	Slightly Below Expected	At Expected	Above Expected	Well Above Expected	Superior				
Verbal-Visual Associative Storage and Retrieval											
WISC-V Storage and Retrieval Index: Broad estimate of long-term storage and retrieval accuracy and fluency.			80 (78-82)								
	Verbal-Visu	al Associati	ve Learning								
NEPSY-II Memory for Names Total: Recalling names associated with faces over repeated trials.				(8) (6-10)							
WISC-V Immediate Symbol Translation: Learning visual-verbal associations and then recalling them.			85 (83-87)								
V	erbal-Visual	Associative	Delayed Reca	ll							
NEPSY-II Memory for Names Delayed Total: Recalling, after a delay, names associated with faces.			(6) (3-9)								
NEPSY-II Memory for Names and Memory for Names Delayed Total Score Immediate Correct vs. Delayed Correct			(7) (5-9)								
WISC-V Delayed Symbol Translation: Recalling, after a delay, visual-verbal associations.		78 (76-80)									
Verb	oal-Visual Ass	sociative De	layed Recogni	ition							

WISC-V Recognition Symbol Translation:		90		
Ability to view a symbol and select the		(88-92)		
associated word from among response options.		(88-92)		

## **Cognitive Processes: Executive Functions**

<b>Executive Functions</b>	Severe	Moderate	Mild	Not Observed
Flexibility in Thinking Difficulties				
Gets stuck on one activity (i.e., playing video games).				M T
Does not seem to hear anything else while watching TV.			ΜT	
Difficulty transitioning from one activity to another.				M T
Planning Difficulties				
Difficulty with making plans.				M T
Quickly becomes frustrated and gives up easily.			ΜT	
Difficulty figuring out how to start a complex task.			ΜT	
Difficulty sticking to a plan of action.			ΜT	
Problem Solving and Organizing Difficulties				
Difficulty solving problems that a younger child can do.				M T
Difficulty learning new concepts or activities.			ΜT	
Makes the same kinds of errors over and over, even after corrections.				M T
Frequently loses track of possessions.		M	T	
Behavioral/Emotional Regulation Difficulties				
Demonstrates signs of over activity (hyperactivity).				M T
Does not seem to think before acting.			M	T
Difficulty following rules.				M T
Demonstrates signs of irritability.				M T
Lacks common sense or judgment.		•		M T
Cannot empathize with the feelings of others.				M T

Cognitive Flexibility (Set Shifting)										
Instrument – Subtest: Description	Well Below Expected	Below Expected	Slightly Below Expected	At Expected	Above Expected	Well Above Expected Sup	perior			
Verbal Cognitive Flexibility										
NEPSY-II Inhibition Switching Combined:										
Rapidly and accurately name shapes while	(2)									
switching cognitive sets.										
• Total Completion Time: How quickly the task was completed (slower time = lower scaled score).		(4) (1-7)								
• <b>Total Errors:</b> Total errors made on the task (more errors = lower % rank).	< 2%									
• Uncorrected Errors: Errors with no attempt to correct (more errors = lower % rank).		6 - 10%								
• Self-Corrected Errors: Errors that were self-corrected (more self-corrections = lower % rank).		2 - 5%								
Ver	bal and Visu	al Cognitiv	e Flexibility							
NEPSY-II Response Set Combined Score: Ability to shift, and selectively attend to targets over time.				(8)						
• Total Commission Errors: Responding to non-target words that were to be ignored (more errors = lower % rank).				26 - 50%						
• <b>Total Correct:</b> Responding correctly to target words (more correct = higher scaled score).				(11)						
<ul> <li>Total Omission Errors:         Missing target words (more errors = lower % rank).     </li> </ul>				51 - 75%						
<ul> <li>Total Inhibitory Errors:         Ignoring distracter words (more errors = lower % rank).     </li> </ul>				51 - 75%						

Con	Concept Recognition and Generation								
Instrument – Subtest: Description	Well Below Expected		Slightly Below Expected	At Expected	Above Expected	Well Above Expected	Superior		
	Concept	Generation	n						
<b>NEPSY-II Animal Sorting Combined:</b> Number of correct sorts and the number of errors.				(11)					
<ul> <li>Correct Sorts: A high score suggests good initiation or sustained effort, good conceptual reasoning or semantic knowledge.</li> </ul>				(11) (8-14)					
<ul> <li>Errors: A low number of errors suggests good self-monitoring (more errors = lower % rank).</li> </ul>				51 - 75%					
<ul> <li>Novel Sort Errors: A high score suggests idiosyncratic or immature reasoning (more errors = lower % rank).</li> </ul>				51 - 75%					
<ul> <li>Repeated Sort Errors: A high score suggests poor cognitive flexibility and self-monitoring (more errors = lower % rank).</li> </ul>				51 - 75%					
WISC-V Similarities: Describing how two words that represent common objects or concepts are similar.				(9) (7-11)					

Problem	Problem Solving, Fluid Reasoning, and Planning										
Instrument – Subtest: Description	Well Below Expected	Below Expected	Slightly Below Expected	At Expected	Above Expected	Well Above Expected	Superior				
Verl	bal Deductive	and Induc	tive Reasonin	ıg							
WISC-V: Comprehension: Answering questions based on understanding of general principles and social situations.					(13) (11-15)						
Visu	Visual Deductive and Inductive Reasoning										
WISC-V Matrix Reasoning: Completing a missing portion of a picture matrix.				(11) (9-13)							
WISC-V Picture Concepts: Choosing one picture from among two or three rows of pictures to form a group with a common characteristic.				(10) (8-12)							
Quantitative Reasoning											
WISC-V Figure Weights: Ability to determine what weight is needed to balance a scale.				(10) (8-12)							

	Respons	e Inhibition	n				
Instrument – Subtest: Description	Well Below Expected	Below Expected	Slightly Below Expected	At Expected	Above Expected	Well Above Expected	Superior
	Verbal Resp	onse Inhib	ition				
<b>NEPSY-II Inhibition (Condition 2) Combined:</b> Rapidly and accurately naming the opposite names of shapes (e.g., "circle" for "square").	(2)						
Completion Time: How quickly the task was completed. (slower time = lower scaled score)		(5) (2-8)					
• Errors: Total errors made on the task. (more errors = lower % rank)	< 2%						
<ul> <li>Uncorrected Errors: Errors with no attempt to correct (more errors = lower % rank).</li> </ul>				26 - 50%			
<ul> <li>Self-Corrected Errors: Errors         that were self-corrected (more         self-corrections = lower % rank).</li> </ul>		2 - 5%					

Instrument – Subtest: Description	Well Below Expected	Below Expected	Slightly Below Expected	At Expected	Above Expected	Well Above Expected	Superior		
Points to Stimuli (rather than verbal response)									
NEPSY-II Inhibition: Naming -				26 - 75%					
Points to Stimuli				20 - 7370					
NEPSY-II Inhibition:				26 - 75%					
Inhibition - Points to Stimuli				20 - 7370					
NEPSY-II Inhibition:						> 75%			
Switching - Points to Stimuli						/ / 3/0			

Behavior Assessment System for Children, Third Edition (BASC-3)								
Indices	Not Elevated	Elevated						
Overall Executive Functioning Index	M T							
Problem Solving Index	M T							
Attentional Control Index	M T							
Behavioral Control Index	M T							
Emotional Control Index	M T							

# Facilitators/Inhibitors: Allocating and Maintaining Attention

Attention Functions	Severe	Moderate	Mild	Not Observed
Selective or Sustained Attention Difficulties				
Seems to get overwhelmed with difficult tasks.		M	T	
Difficulty paying attention for a long period of time.			ΜT	
Seems to lose place in an academic task.		T	M	
Mind appears to go blank or loses train of thought.				M T
Inattentive to details or makes careless mistakes.			ΜT	

Selecti	ive/Focused	and Sustair	ned Attention	1			
Instrument – Subtest: Description	Well Below Expected	Below Expected	Slightly Below Expected	At Expected	Above Expected	Well Above Expected	Superior
	<b>Overall Asses</b>	sment of A	ttention				
WRAML3 Attention/Concentration Index: Overall indicator of attentional skills				94 (92-96)			
	 elective/Foci	ised and Si	ıstained Atte				
NEPSY-II Auditory Attention Combined:  Selectively respond to auditory target words while ignoring auditory non-target words.  • Commission Errors: Responding to non-target words that were to be ignored (more errors = lower % rank).  • Total Correct: Responding correctly to target words (more correct = higher scaled score).				(8) 51 - 75% (9)			
Omission Errors: Missing target words (more errors = lower % rank).				26 - 50%			
o <b>Inhibitory Errors:</b> Ignoring distracter words. (More errors = lower % rank).				26 - 50%			

	Attentio	nal Capaci	ty					
Instrument – Subtest: Description	Well Below Expected	Below Expected	Slightly Below Expected	At Expected	Above Expected	Well Above Expected	Superior	
Attentional Capacity for Numbers or Letters with Verbal Response								
WISC-V Digit Span Forward: Repeating				(8)				
auditorily presented digits of increasing length.				(6-10)				
WRAML3 Number Letter: Repeating auditorily								
presented number/letter strings of increasing length.				(0)				
doe not show up in the Attentional Capacity section				(9)				
- it shows up in 2 places in the report								
Attentional Capacity f	or Visual Se	quential Pa	tterns with	Motor Res	ponse			

WRAML3 Finger Windows: Using a finger to				(0)			
repeat a visual pattern of increasing length.				(9)			
Attentional Capacity for Words and Sentences (Increased Meaning) with Verbal or Motoric Response							
WIAT-4 Oral Expression: Sentence Repetition:				110			
Repeating sentences of increasing length.				(101-119)			
WRAML3 Sentence Memory: Repeating				(9)			
sentences of increased length and complexity.				(8)			
Attentional Capacity for Stori	ies (Even mo	re Context	tual Meaning	) with Ver	bal Respon	se	
NEPSY-II Narrative Memory Free Recall:		(5)					
Recalling orally presented story details.		(2-8)					
WRAML3 Story Memory: Recalling orally			(6)				
presented story details.			(6)				

Qualita	tive Behavior	rs for Atten	tional Proces	sses			
Instrument – Subtest: Description	Well Below Expected	Below Expected	Slightly Below Expected	At Expected	Above Expected	Well Above Expected	Superior
NEPSY-II Auditory Attention and Response Set: Inattentive/Distracted Off-Task Behaviors (Age Comparison)				26 - 50%			
NEPSY-II Auditory Attention and Response Set: Inattentive/Distracted Off-Task Behaviors: ADHD Clinical Group						> 75%	
NEPSY-II Auditory Attention and Response Set: Out of Seat/Physical Movement in Seat Off-Task Behaviors (Age Comparison)				26 - 50%			
NEPSY-II Auditory Attention and Response Set: Out of Seat/Physical Movement in Seat Off-Task Behaviors: ADHD Clinical Group						> 75%	

Behavior Assessment Sys	tem for Child	ren, Third Ed	lition (BASC-	3) - Ratings o	f Attention	
	Ave	rage	At-	Risk	Clinically	Significant
Scale	First	Second	First	Second	First	Second
	Group	Group	Group	Group	Group	Group
First Group Comparison: General Norms C	Gender Combi	ined				
Second Group Comparison: ADHD Norms	Gender Coml	bined				
	Clinic	al Scales (T-So	cores)			
		M (37)				
Attention Problems	M (53)	(31-43)	T (61)			
Attention Floblenis	(48-58)	T (55)	(57-65)			
		(50-60)				
	M (48)	M (42)				
Hyperactivity	(42-54)	(36-48)				
lityperactivity	T (48)	T (46)				
	(44-53)	(42-50)				
	M (54)	M (41)				
A DUD Probability Inday	(48-60)	(34-48)				
ADHD Probability Index	T (58)	T (52)				
	(52-64)	(46-58)				

# Facilitators/Inhibitors: Working Memory

Working Memory (NPCC-3)	Severe	Moderate	Mild	Not Observed
Frequently asks for repetitions of instructions/explanations.				ΜT
Trouble following multiple step directions.			ΜT	
Loses track of steps/forgets what they are doing amid a task.			ΜT	
Loses place in the middle of solving a math problem.			ΜT	
Loses train of thought while writing.		T	M	
Trouble summarizing narrative or text material.		T	M	
Trouble remembering facts or procedures in mathematics.			ΜT	

## **Working Memory**

Instrument – Subtest: Description	Well Below Expected	Below Expected	Slightly Below Expected	At Expected	Above Expected	Well Above Expected	Superior
	Verbal W	orking Me	mory				
NEPSY-II Word List Interference Recall:							
Repeating an initial string of unrelated words after a second interference list of unrelated words is presented.			(6) (3-9)				
TAPS-4 Number Memory Reversed: Repeating							
number strings in reverse order that were spoken by the examiner.				(10) (7-13)			
WISC-V Arithmetic: Mentally solving orally				(8)			
presented arithmetic problems within time limits.				(6-10)			
WISC-V Digit Span Backward: Repeat number strings in reverse order that were spoken by the examiner.				(9) (7-11)			
WISC-V Digit Span Sequencing: Ability to				(11)			
sequence digits according to value. Also involves				(11) (9-13)			
quantitative reasoning.				(9-13)			
WISC-V Letter-Number Sequencing: Recalling			(7)				
numbers in ascending order and letters in			(5-9)				
alphabetical order.			(3 ))				
WRAML3 Verbal Working Memory: Three							
levels of difficulty, which requires reordering of				(8)			
words to some stimulus property (e.g., word				(0)			
order, size of object, etc.).							
	Visual W	orking Me	mory		ı	1	
WISC-V Picture Span: Ability to recall the order of visual stimuli.				(8) (6-10)			
WRAML3 Visual Working Memory: Touching				, ,			
pictures initially touched by examiner following prescribed rules.		(5)					

Qualitative Behaviors for Working Memory	
Instrument – Subtest: Description	Standardization Sample Base Rate
WISC-V Process Scores	
<b>Longest Digit Span Backward:</b> Percentage of same age peers who achieved this number of the longest digit span backward (auditory working memory).	74%
<b>Longest Digit Span Sequence:</b> Percentage of same age peers who achieved this number of the longest digit span sequence (auditory working memory).	31%
<b>Longest Picture Span Stimulus:</b> The highest number of stimulus pictures that appear on the last item with a perfect score.	93.5%
<b>Longest Picture Span Response:</b> The highest number of response pictures that appear on the last item with a perfect score.	100%
Longest Letter-Number Sequence: The highest letter-number sequence compared to same age peers.	96%
WISC-V Process Level Discrepancy Comparisons	
<b>Longest Digit Span Forward - Longest Digit Span Sequence:</b> Percentage of age peers with auditory immediate memory > auditory working memory.	97.5%
Longest Digit Span Backward - Longest Digit Span Sequence: Percentage of age peers with differences between two types of auditory working memory.	92.5%

# Facilitators/Inhibitors: Speed, Fluency, and Efficiency of Processing

Speed, Fluency, and Efficiency of Processing Functions	Severe	Moderate	Mild	Not Observed
Processing Speed and Fluency Difficulties				
Takes longer to complete tasks than others the same age.		ΜT		
Slow reading that makes comprehension difficult.		T	M	
Homework takes too long to complete.		T	M	
Requires extra time to complete tests.		T	M	
Responds slowly when asked questions.			ΜT	
Acquired Knowledge Fluency - Reading Fluency Difficulties				
Has a limited reading vocabulary.			ΜT	
Difficulty reading quickly and accurately.		T	M	

Slow and deliberate reader.			ΜT				
Difficulty using appropriate phrasing and expression while reading.			ΜT				
Acquired Knowledge Fluency - Writing Fluency Difficulties							
Takes a long time to write even simple sentences		ΜT					
Develops an organized sequence in writing that is easy to follow.		T	M				
Maintains a clear and sustained focus on the main writing topic			T	M			
Acquired Knowledge Fluency - Mathematics Fluency Difficulties							
Takes a long time to solve simple math problems.			ΜT				
Difficulty pulling basic math facts out of memory quickly.			ΜT				
Processing Speed with Accuracy Difficulties							
Does not do well on timed tests.		T	M				
Difficulty recalling information accurately and quickly.			ΜT				

	Performa	ance Fluenc	ey				
Instrument – Subtest: Description	Well Below Expected	Below Expected	Slightly Below Expected	At Expected	Above Expected	Well Above Expected	Superior
	Percept	ual Fluency	7				
WISC-V Coding: Copying symbols paired with		(4)					
geometric shapes or numbers within a time limit.		(2-6)					
WISC-V Symbol Search: Scanning a search group				(8)			
and marking the presence or absence of a target				(6-10)			
symbol or symbols within a time limit.				(0-10)			
	Namin	g Fluency					
FAR Rapid Automatic Naming (RAN): Naming				92			
objects, letters, and stenciled letters quickly.				(82-102)			
NEPSY-II Inhibition: Naming Combined:	(2)						
Rapidly and accurately name shapes.	(2)						
• Completion Time: How quickly the task		(5)					
was completed (slower time = lower scaled		(2-8)					
score).		(= 0)					
Naming Errors: Total errors made on the	< 2%						
task (more errors = lower % rank).							
• Uncorrected Errors: Errors with				26 5007			
no attempt to correct (more errors				26 - 50%			
= lower % rank).							
Self-Corrected Errors: Errors		2 50/					
that were self-corrected (more		2 - 5%					
self-corrections = lower % rank).  NEPSY-II Speeded Naming Combined: Rapidly							
naming attributes of objects or a series of numbers			(7)				
and letters.			(7)				
Completion Time: How quickly the task							
was completed (slower time = lower scaled			(7)				
score).			(6-8)				
Total Correct: How accurately the task							
was completed (more correct = higher %				26 - 50%			
rank).				20 3070			
Self-Corrected Errors: Awareness of							
errors made on the task with self-correction		6 - 10%					
(more self-corrections = lower % rank).							
	Oral Mo	tor Fluenc	y				
NEPSY-II Repetition of Nonsense Words Total:				(10)			
Repetition of nonsense words.				(10)			

	Ret	trieval Flue	ncy					
Instrument – Subtest: Description	Well Below Expected	Below Expected	Slightly Below Expected	At Expected	Above Expected	Well Above Expected	Superior	
Word Fluency								
NEPSY-II Word Generation Initial Letter Total: Words recalled quickly that start with a particular letter.						(13) (10-16)		
Semantic Fluency								

FAR Verbal Fluency: Naming words as quickly as possible that start with a particular letter or fit in the same category (e.g., animals).			120 (111- 129) <sup>1</sup>	
NEPSY-II Word Generation Semantic Total: Words recalled quickly that fit into a category.		(11) (9-13)		
WIAT-4 Oral Expression: Oral Word Fluency: Ability to quickly name things that fit in a given category.			115 (104-126)	

<sup>&</sup>lt;sup>1</sup> Based on grade norms not age norms.

	Acquired	Knowledge	Fluency				
Instrument – Subtest: Description	Well Below Expected	Below Expected	Slightly Below Expected	At Expected	Above Expected	Well Above Expected	Superior
	Fluency	Summary I	ndices				
WIAT-4 Reading Fluency Composite: Oral reading fluency, orthographic fluency, and decoding fluency combined.			81 (77-85)				
Readin	ng Fluency: F	Rapid Phone	ological Deco	ding			
FAR Isolated Word Reading Fluency: Reading isolated words quickly.			86 (76-96)1				
<b>FAR Oral Reading Fluency:</b> Reading passages for rate and accuracy.			81 (75-87) <sup>1</sup>				
FAR Irregular Word Reading Fluency: Ability to read a list of phonologically irregular words.				91 (84- 98) <sup>1</sup>			
FAR Silent Reading Fluency Rate: Ability to read a passage and answer questions.					111 (104- 118) <sup>1</sup>		
WIAT-4 Decoding Fluency: Measures phonic decoding fluency.				105 (99-111)			
WIAT-4 Oral Reading Fluency: Reading passages aloud and then orally responding to comprehension questions.				94 (88-100)			
	g Fluency: R	apid Morph	ological Deco	oding			
FAR Morphological Processing: Ability to choose the morpheme that best completes an incomplete target word.			85 (78-92) <sup>1</sup>	8			
	Wr	iting Fluenc	y				
WIAT-4 Sentence Writing Fluency:     Measures sentence composition fluency.			84 (74-94)				
	Mathe	matical Flu					
WIAT-4 Math Fluency Composite: Solving simple math problems quickly.			87 (82-92)				
Math Fluency – Addition: Solving simple addition problems quickly.				90 (81-99)			
Math Fluency – Subtraction: Solving simple subtraction problems quickly.			85 (78-92)				
<ul> <li>Math Fluency – Multiplication: Solving simple multiplication problems quickly.</li> </ul>			83 (75-91)				

<sup>&</sup>lt;sup>1</sup> Based on grade norms not age norms.

	Fluency with Accuracy									
	Average to Low Numbers of Errors				High Number of Errors					
Tests	Fast Completion	Average	Slow Completion	Fast Completion	Average	Slow Completion				
	Times	<b>Completion Times</b>	Times	Times	Completion Times	Times				
NEPSY-II Speeded		v								
Naming		X								
NEPSY-II						X <sup>9</sup>				
Inhibition: Naming						Λ				
NEPSY-II						X				
Inhibition: Inhibition						Λ				

NEPSY-II			v
Inhibition: Switching			Λ

<sup>&</sup>lt;sup>9</sup> The completion time may have been impacted by a large number of corrected errors.

Qualitative Behaviors for Processing Speed	
Instrument – Subtest: Description	Standardization Sample Base Rate
<b>WISC-V Coding Rotation Errors:</b> Percentage of same age peers who made this number of rotation errors on the Coding test.	5%
WISC-V Symbol Search Set Errors: Percentage of same age peers who made set errors on Symbol Search.	25%
WISC-V Symbol Search Rotation Errors: Percentage of same age peers who made rotation errors on Symbol Search.	5%

## Acquired Knowledge: Acculturation Knowledge

Semantic Memory									
Instrument – Subtest: Description	Well Below	Below	<b>Slightly Below</b>	At	Above	Well Above	Superior		
instrument – Subtest. Description	Expected	Expected	Expected	Expected	Expected	Expected	Superior		
General Information									
WISC-V Information: Answering questions about a wide range of general knowledge topics.				(11) (9-13)					

## Acquired Knowledge: Language Abilities

Language Functions	Severe	Moderate	Mild	Not Observed
Oral Expression Difficulties				
Slow labored speech.				M T
Limited amount of speech.				M T
Makes odd or unusual language or vocal sounds.				M T
Distorts sounds (i.e., slurring, stuttering).				ΜT
Difficulty finding the right word to say.				ΜT
Receptive Language Difficulties				
Trouble understanding what others are saying.				M T
Does not do well with verbal directions.				M T
Loses track of what he/she was told to do.				ΜT
Does not follow conversations well.				M T

Overall Language Abilities								
Instrument – Subtest: Description	Well Below	Below	Slightly Below		Above	Well Above	Superior	
Instrument – Subtest. Description	Expected	Expected	Expected	Expected	Expected	Expected	Superior	
WIAT-4 Oral Language Composite: Oral					115			
expression and listening comprehension					(108-122)			
combined.					(100 122)			

	Or	al Expressi	on					
Instrument – Subtest: Description	Well Below Expected	Below Expected	Slightly Below Expected	At Expected	Above Expected	Well Above Expected	Superior	
Vocabulary Knowledge and Oral Expression								
<b>WIAT-4 Oral Expression:</b> A compilation of expressive vocabulary, oral word fluency, and sentence repetition.				110 (101-119)				
• Expressive Vocabulary: Naming pictures.					117 (103-131)			
WISC-V Vocabulary: Ability to name pictured objects or define word meanings.					(13)			

## **Receptive Language (Listening Comprehension)**

Instrument – Subtest: Description	Well Below Expected	Below Expected	Slightly Below Expected	At Expected	Above Expected	Well Above Expected	Superior	
	Receptive Language with Verbal Response							
TAPS-4 Listening Comprehension Index:			89					
Composite score of the three subtests below:			(80-98)					
<ul> <li>Auditory Comprehension: Listening to an</li> </ul>				(9)				
oral passage and then answering questions.				(7-11)				
<ul> <li>Auditory Figure-Ground (Processing Oral</li> </ul>								
<b>Directions with background noise):</b> Ability			(7)					
to process and recall oral directions when			(5-9)					
presented with competing background noise.								
<ul> <li>Processing Oral Directions (without</li> </ul>								
background noise): Ability to process and				(9)				
recall oral directions when presented in quiet				(7-11)				
listening conditions.								
WIAT-4 Listening Comprehension: Listening to				110				
passages and then responding to questions.				(103-117)				
• Oral Discourse Comprehension: Listening				105				
to passages and answering questions about								
each one.				(96-114)				
Receptive Vocabulary: Listening to								
passages and answering questions about each					112			
one. (NOTE: This is a nonverbal response					(102-122)			
but is listed here for comparative purposes)					`			
Receptive Lan	guage with	Nonverbal	Motor Resp	onse				
NEPSY-II Comprehension of Instructions Total:								
Respond quickly to verbal instructions of increasing				(8)				
complexity.				(5-11)				

	Qualitative Behaviors for Receptive Language									
Instrument – Subtest: Description	Well Below	Below	<b>Slightly Below</b>	At	Above	Well Above	Superior			
instrument – Subtest. Description	Expected	Expected	Expected	Expected	Expected	Expected	Superior			
Asking for Repetitions: Possible Attentional or Receptive Language Deficits										
NEPSY-II Comprehension of				26 - 75%						
Instructions (Age Comparison)				20 - 7370						
NEPSY-II Comprehension of						> 75%				
<b>Instructions: ADHD Clinical Group</b>					> /3%					
Asking for Repetitions: Po	ssible Attentio	nal, Recepti	ve Language, or	Verbal Im	mediate Mer	nory Deficits				
NEPSY-II Word List Interference				26 - 75%						
(Age Comparison)				20 - 75%						
NEPSY-II Word List Interference:				26 - 75%						
ADHD Clinical Group				20 - /3%						

# Acquired Knowledge: Reading Achievement

Academic Functions: Reading	Severe	Moderate	Mild	Not Observed
Reading Decoding Difficulties				
Over-relies on sounding out most words when reading; even familiar words.			T	M
Over-relies on memorizing what words look like rather than sounding them out.				ΜT
Substitutes words that sound like the target word (i.e., reading "pear" for "bear").				ΜT
Substitutes words that mean that same as the word being read, but not the word itself (i.e.,				ΜТ
reading "truck" for "car").				IVI I
Reading Comprehension Difficulties				
Difficulty understanding what is read.			M T	
Difficulty identifying main elements of a story.		ΜT		
Appears distracted while reading.		M	T	
Misses important details while reading.		ΜT		
Reading: Attitudinal Issues				
Avoids reading activities.	M	T		
Appears anxious/uptight/nervous while reading.	ΜT			
Shows no interest in reading for information or pleasure.	M	T		

	Readin	g Achieven	nent							
Instrument – Subtest: Description	Well Below Expected	Below Expected	Slightly Below Expected	At Expected	Above Expected	Well Above Expected	Superior			
	Reading Summary Indices									
FAR Phonological Index: Significantly low				91 (87-						
scores are consistent with dysphonetic dyslexia.				95) <sup>1</sup>						
FAR Fluency Index: Significantly low scores				91 (85-						
are consistent with surface dyslexia.				97)1						
<b>FAR Mixed Index:</b> Significantly low scores are				90 (86-						
consistent with mixed dyslexia.				94) <sup>1</sup>						
FAR Comprehension Index: Significantly low				92 (85-						
scores are consistent with reading comprehension				92 (83-						
deficits.				99)						
FAR Total Index: Significantly low scores are				90 (86-						
consistent with overall difficulties with reading.				94)1						
WIAT-4 Dyslexia Index (4-12+): Word reading,					111					
pseudoword decoding, and orthographic fluency					(108-114)					
combined.					(100-114)					
WIAT-4 Reading Composite: Word reading and				97						
reading comprehension combined.				(90-104)						
Basic	Reading Ski	lls: Phonolo	gical Decodi	ng						
FAR Nonsense Word Decoding: Ability to				92 (82-						
decode a series of individual nonsense words.				$102)^{1}$						
WIAT-4 Basic Reading Composite:				106						
Pseudoword decoding, phonemic proficiency,				(103-109)						
and word reading combined.				(103-109)						
WIAT-4 Decoding Composite: Pseudoword				105						
decoding and word reading combined.				(102-108)						
WIAT-4 Phonological Processing Composite:				100						
Pseudoword decoding and phonemic proficiency				(95-105)						
combined.				` '						
WIAT-4 Pseudoword Decoding: Ability to				110						
phonologically decode pseudowords.				(105-115)						
WIAT-4 Phonemic Proficiency: Measures the				102						
development phonological/phonemic skills.				(95-109)						
WIAT-4 Word Reading: Measures letter and				93						
letter-sound knowledge and single word reading.				(89-97)						
Basic Reading Skills: Or	thographic C	oding (taps	immediate a	nd workin	g memory)					
FAR Orthographical Processing: Ability to				99 (89-						
recall the letter of group of letters that are in a				$109)^1$						
target word after a short presentation.				109)						
	Reading Co	mprehensi	on Skills							
FAR Semantic Concepts: Ability to select a				93 (85-						
word that is similar or opposite in meaning to a				$101)^1$						
target word.				101)						
FAR Silent Reading Fluency -										
<b>Comprehension:</b> Ability to read a passage and			88 (78-98) <sup>1</sup>							
answer questions.										

<sup>&</sup>lt;sup>1</sup> Based on grade norms not age norms.

# Acquired Knowledge: Written Language Achievement

Academic Functions: Writing	Severe	Moderate	Mild	Not Observed
Writing: Spatial Production Functions	·			
Demonstrates uneven spacing between words and letters.				ΜT
Trouble staying on the horizontal lines.				ΜT
Others have difficulty reading what the child has written				ΜT
Trouble forming letters and words.				ΜT
Writes overly large letters and words.				ΜT
Writing: Expressive Language Functions				
Limited vocabulary for age; uses lots of easy words.		ΜT		
Difficulty putting ideas into words.		ΜT		

Uses simple sentence structure and lacks variety.	MT	
Produces poor spelling in writing.	M T	
Poor grammar in writing.	M T	
Writing: Graphomotor Output Functions		
Difficulty holding the pencil or pen correctly.		M T
Presses too soft with the pencil/pen while writing.		M T
Writes overly small letters and words.		M T
Presses too hard with the pencil/pen while writing.		M T
Shows preference for printing over cursive writing.		M T
Writing: Attitudinal Issues		
Avoids writing activities.	M T	
Appears anxious/uptight/nervous while writing.	M T	
Shows no interest in writing activities.	M T	

	Written Lai	nguage Ach	ievement					
Instrument – Subtest: Description	Well Below Expected	Below Expected	Slightly Below Expected	At Expected	Above Expected	Well Above Expected	Superior	
	Writing	Summary I	ndices					
WIAT-4 Written Expression Composite: Spelling and sentence composition combined.			87 (81-93)					
spennig and sentence composition combined.	Exposite	ory Compos						
<ul> <li>WIAT-4 Sentence Composition: Measures sentence formation skills.</li> <li>Sentence Building: Writing meaningful sentences that uses a specific word.</li> <li>Sentence Combining: Combining information from two or three sentences into single sentences that mean the same thing.</li> </ul>				97 (88-106) 92 (82-102) 104 (92-116)				
WIAT-4 Essay Composition: Measures spontaneous writing fluency at the discourse level.			88 (76-100)					
Orthographic Spelling								
<b>WIAT-4 Spelling:</b> Measures written spelling from dictation.			86 (82-90)					

Qualitative Behaviors for Written Expression							
Instrument – Subtest: Description	Standardization	on Sample Base Rate					
Essay Composition: Content and Organization Qualitative Ar	nalysis						
WIAT-4 - Essay Composition Element:	Included	Not Included					
• Introduction: includes thesis statement	X						
• Introduction: Summaries reasons		X					
Body: Includes reason 1	X						
Body: Includes reason 2	X						
Body: Includes reason 3	X						
Body: Supports each reason with facts or details		X					
• Body: Uses transition/linking words to create cohesion (e.g., because, for example)	X						
Conclusion: Restates thesis statement	X						
Conclusion: Restates reasons		X					
Uses paragraph structure		X					

# Acquired Knowledge: Mathematics Achievement

Academic Functions: Mathematics	Severe	Moderate	Mild	Not Observed
Mathematics: Computational and Procedural Difficulties				
Forgets what steps to take when solving math problems (i.e., carrying in addition or borrowing in subtraction).			МТ	
Makes computational errors.			M T	
Slow in solving math problems.		T	M	
Makes careless mistakes while solving math problems.			M T	
Does not always pay attention to the math problems signs.				ΜT
Mathematics: Visual-Spatial Difficulties				

Difficulty aligning a column of numbers.				ΜT
Difficulty understanding spatial attributes such as size and location of numbers.				ΜT
Difficulty recognizing visual differences in magnitude (i.e., which group of objects has more				МТ
than another group?).				
Mathematics: Verbal Difficulties				
Difficulty with retrieval of basic math facts.		M	T	
Difficulty solving story problems.	N	ΛT		
Difficulty with counting.				ΜT
Slow in number identification.				ΜT
Mathematics: Attitudinal Issues				
Appears anxious/uptight/nervous when working with math.			M	T
Avoids math activities.			M	T
Show no interest in math.		T	M	

Mathematics Achievement								
Instrument Subtests Description	Well Below	Below	<b>Slightly Below</b>	At	Above	Well Above	Sunarian	
Instrument – Subtest: Description	Expected	Expected	Expected	Expected	Expected	Expected	Superior	
	Mathe	matics Sum	mary Indices					
WIAT-4 Mathematics Composite: Math problem solving and numerical operations combined.				101 (97-105)				
	Matl	nematical C	alculations					
WIAT-4 Numerical Operations:			88					
Measures math calculation skills.			(80-96)					
Mathematical Reasoning								
WIAT-4 Math Problem Solving: Analyzing and solving practical math problems.				107 (102-112)				

# Social-Emotional Functioning and Adaptive Behaviors

Social Perception								
Instrument – Subtest: Description	Well Below Expected	Below Expected	Slightly Below Expected	At Expected	Above Expected	Well Above Expected	Superior	
<b>NEPSY-II Affect Recognition Total:</b> Ability to recognize emotions in pictures of faces.				(12) (10-14)				
Total Happy Errors				26 - 50%				
<ul> <li>Total Sad Errors</li> </ul>				51 - 75%				
<ul> <li>Total Neutral Errors</li> </ul>						> 75%		
• Total Fear Errors				51 - 75%				
Total Angry Errors				51 - 75%				
Total Disgust Errors				51 - 75%				
<b>NEPSY-II Theory of Mind Total:</b> Ability to tale the perspective of others.				51 - 75%				
<ul> <li>Theory of Mind Verbal Score:         Verbal items related to perspective taking.     </li> </ul>				51 - 75%				

Qualitative Behaviors for Social-Emotional Functioning								
Instrument – Subtest: Description	Well Below Expected	Below Expected	Slightly Below Expected	At Expected	Above Expected	Well Above Expected	Superior	
	Sp	ontaneous (	Comments					
NEPSY-II - Memory for Faces and Memory for Faces Delayed (Age Comparison)					26 -	75%		
NEPSY-II - Memory for Faces and Memory for Faces Delayed: ADHD Clinical Group					26 -	75%		
NEPSY-II - Affect Recognition (Age Comparison)					26 -	50%		
NEPSY-II - Affect Recognition: ADHD Clinical Group					26 -	50%		

Behavior Assessment System for Children	en, Third	l Edition	(BASC-3	) - Rating	S	
	Ave	rage	At-	Risk	Clinically	
Scale	First	Second	First	Second	First	Second
First Group Comparison: General Norms Gender Combined	Group	Group	Group	Group	Group	Group
Second Group Comparison: ADHD Norms Gender Combined						
Clinical Scale		es)	Π	, , , , , , , , , , , , , , , , , , ,		
	M (50) (47-53)					
Externalizing Problems	T (45)					
	(42-48)					
	M (47) (42-52)					
<ul> <li>Aggression</li> </ul>	T (45)					
	(40-50)					
	M (54) (49-59)					
Conduct Problems	T (43)					
	(38-48)					
	M (55) (52-59)				S (71)	
Internalizing Problems	T (44)				(68-74)	
	(40-48)		<b>N</b> ((7)		G (70)	
Anxiety	T (47) (41-53)		M (67) (62-72)		S (70) (65-75)	
	M (54)		(02 /2)		(05 75)	
Depression	(49-59)		S (62)			
1	T (44) (38-50)		(56-68)			
	M (41)					
	(36-46)					
Somatization	T (44) (38-50)					
	S (53)					
	(45-61)					
	M (51) (48-54)					
Behavioral Symptoms Index	T (50)					
	(47-53)					
	M (57) (52-62)		S (68)			
Atypicality	T (56)		(61-75)			
	(50-62)		S ((5)			
<ul> <li>Locus of Control</li> </ul>			S (65) (58-73)			
	M (48)		)			
<ul> <li>Withdrawal</li> </ul>	(42-54) T (48)					
	(42-54)					
Emotional Symptoms Index						
Sense of Inadequacy					S (77) (70-84)	
School Problems	S (59)				(70-0-1)	
SCHOOL LIONEHIS	(54-64)		m // 1			
Learning Problems			T (64) (58-70)			
Attitude to School	S (53) (46-60)					
Attitude to Teachers	S (53) (46-60)					
Adaptive Scale	es (T-Scor	res)				
Adaptive Skills	M (48) (45-51)					
	M (46)					
Adaptability	(41-51)					
- Tunpmonty	T (55)					
	(50-60)					

Social Skills	M (58) (53-63)	T (38) (34-42)	
Leadership	M (43)	T (36)	
Activities of Daily Living	(37-49) M (47)	(31-41)	
	(40-54) M (45)	T (34)	
Functional Communication	(39-51)	(28-40)	
Study Skills	T (43) (40-47)		
Personal Adjustment		S (37) (33-41)	
Relations with Parents		S (30) (25-35)	
Interpersonal Relations	S (45) (38-52)		
Self-Esteem	S (40) (34-47)		
Self-Reliance	S (45) (38-52)		
Content Sca	les (T-Scores)		
	M (49) (43-55)		
Anger Control	T (46)		
	(40-52)		
D. W.	M (46) (42-50)		
Bullying	T (44)		
	(39-49)		
	M (49) (44-54)		
Developmental Social Disorder	T (59)		
	(54-64)		
	M (51) (46-56)		
Emotional Self-Control	T (46)		
	(41-51)		
	M (54) (50-59)		
Executive Functioning	T (57)		
	(54-60)		
	M (52) (46-58)		
Negative Emotionality	T (41)		
	(36-46)	T (20)	
Resiliency	M (44) (40-49)	T (39) (35-43)	
Ego Strength		S (35) (28-42)	
Mania	S (59) (52-66)	(20.2)	
Test Anxiety	(32 00)	S (68) (60-76)	
Probability In	dices (T-Scores)	[(00-70)]	
	M (54)		
Autism Probability Index	(49-59) T (58)		
	(52-64)		
	M (46)		
Emotional-Behavior Disordered (EDB) Probablity Index	(41-51) T (57)		
	(53-61)		
	M (49)		
Functional Impairment Index	(45-53) T (46)		
	(43-50)		
	(43-30)		