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COMPREHENSIVE NEUROPSYCHOLOGICAL EVALUATION

The information contained in this report is confidential and may not be released without further signed informed consent

Name: X X
Date of Testing: 2014
Date of Birth: 1997
Age: 16 years, 8 months
Grade: 10th
School: High School
Date of Report: 2014
Name of Examiner: Amy M. Pacos, Psy.D. – Licensed Psychologist/Clinical Neuropsychologist

REASON FOR REFERRAL

X X is a 16-year-old, right-handed, Caucasian male whose parents, Mr. and Mrs. X, are seeking an evaluation for academic accommodations for X. School records reflect prior diagnoses of Autism and Word Aphasia. The current evaluation was sought to provide information related to X's current level of functioning to determine academic accommodations.

TESTS ADMINISTERED

Asperger Syndrome Diagnostic Scale (Parent and Self-Report)
Behavior Assessment System for Children, Second Edition—Parent (BASC-2)
Beery-Buktenica Developmental Test of Visual-Motor Integration (Beery VMI)
Behavioral Observations of X X
Behavior Rating Inventory of Executive Functioning—Parent (BRIEF-P)
Behavior Rating Inventory of Executive Functioning—Self-Report (BRIEF-SR)
Boston Naming Test
California Verbal Learning Test, Second Edition (CVLT-II)
Clinical Interview with X
Clinical Interview with X X
Conners 3 – Parent and Self-Report
Dunn Sensory Profile – Self Questionnaire
Dunn Short Sensory Profile – Parent
Integrated Visual and Auditory Continuous Performance Test (IVA+Plus)
Nelson Denny Reading Test
Review of Available Records
Rey-Osterrieth Complex Figure Task and Recognition Trial (RCFT)
Test of Written Language – Fourth Edition (TOWL-4)
Trail Making Test, Parts A & B
Wechsler Adult Intelligence Scale, Fourth Edition (WAIS-IV)
Wisconsin Card Sorting Test: Computer Version 4 (WCST-4)
Woodcock-Johnson III—Tests of Achievement (Form A)

PROCEDURES

Prior to the initiation of the evaluation, X and his mother were informed of the nature of the assessment, as well as, the limits of confidentiality. Mrs. X gave informed consent and agreed to allow X to participate in the evaluation process. Mrs. X provided a written signature that the evaluation process was orally explained to him in depth by Dr. Pacos (including the various aspects of the evaluation process and time-frame of completion). Further, both parties were given the opportunity to ask questions regarding the evaluation prior to the initiation of formal measures. Evaluation procedures include clinical interviews with Mrs. X and X, as well as, administration of cognitive, psychological, and neuropsychological tests. Testing was conducted at this examiner's office in Virginia (2014).

HISTORY OF PRESENTING CIRCUMSTANCES

The current evaluation was sought due to ongoing concerns regarding X's academic performance. X has reportedly received accommodations since entering 5th grade. His current accommodations include typing on a word processor with the use of spell check and time and a half. According to his mother, X was slow to read and took two years to learn using Hooked on Phonics. Developmentally, X was late on forming phrases and short sentences and his three younger siblings were generally more advanced, developmentally. Overall, Mrs. X described X as a smart, well-behaved teenage boy.

The current evaluation was requested to determine X's present functioning, provide diagnostic clarification, and identify appropriate interventions and recommendations to better support X at home and within his school setting. Additionally, X's parents are seeking recommendations for placement and avocation for X once he completes high school.

REVIEW OF RECORDS

The following records were provided and reviewed as part of this evaluation:

- 1.) 504 Plan (dated: 2012)
- 2.) Consultation Report (dated: /2014)

BACKGROUND INFORMATION**Family History**

X is a 16-year-old Caucasian male who was born in Tennessee. He is the oldest of four children. He currently lives in Virginia with his siblings and parents, X X who is a stay-at-home mother, and X X who has a Ph.D. and is employed. X described himself as being more like his father because of their shared sense of "dark humor." X's mother reported a family history of bipolar disorder on her side of the family as well as problems with alcohol on X's father's side.

Birth/Medical History

X was born in Tennessee and weighed 7 pounds, 14 ounces, and was 21 inches in length. According to his mother, X was delivered via emergency C-section due to a lack of oxygen. Mrs. X endorsed significant delivery complications including a reported morphine overdose. According to medical records, X met most developmental milestones on time, however, there

were some delays in his developmental language skills. Mrs. X also reported that X did not crawl until about 12 months and generally had slow gross motor skills.

School History

X was reportedly homeschooled by his mother from Kindergarten through 4th grade. According to his mother, X was slower to read than his siblings. For 5th grade, he was enrolled in a Catholic school; however, he was placed in the 4th grade by the school due to difficulties with spelling. After moving to Colorado, X completed 5th through 8th grade at a public school. He completed 9th grade and is currently enrolled in 10th grade at High School in Virginia. X reportedly attends School for a gifted program where he takes his core classes.

Psychosocial History

Socially, X was described by his mother as being a compassionate and sensitive individual. While he reportedly has several friends, both X and his mother reported he felt closest to and likes to spend the most time with his siblings, especially his brother. X shows minimal interest in dating, stating that he did not want to get emotionally attached to someone when he would have to move in a few years anyway. X received a previous diagnosis of Autism and Word Aphasia from City Schools (dated: 2012).

MENTAL STATUS AND BEHAVIORAL OBSERVATIONS

X presented as a 16-year-old male who was tall and slim. He arrived on time for the assessment and was accompanied by his mother. He dressed casually in jeans and a t-shirt. X appeared clean and well-groomed and was oriented to person, place, and time. Although rapport was easily established, X often seemed less than interested in conversation and took things very literally. Throughout interview and observation, X's tendency toward practicality and logical thinking was evident. Overall, X showed good attention and did not require re-directing and often encouraged himself to complete a task.

VALIDITY CONSIDERATIONS:

Results of this evaluation are generally considered to provide an accurate reflection of X's functioning. Testing took place in what can be considered an optimal learning environment: with one-on-one attention and minimal distractions from inside and outside the testing room. As such, X's performance on the evaluation measures may differ from his in-class performance, and scores should be interpreted cautiously.

TEST RESULTS

COGNITIVE FUNCTIONING:

X's intellectual functioning was assessed using the Wechsler Adult Intelligence Scale, Fourth Edition (WAIS-IV). The WAIS-IV measures four specific areas of intellectual functioning: Verbal Comprehension, Perceptual Reasoning, Working Memory, and Processing Speed. The measure is comprised of ten subtests. X earned a WAIS-IV Full Scale IQ (FSIQ) of 110, which falls in the High Average range, and in the 75th percentile. There was significant variability amongst indices and subtests; as such, the Full Scale IQ score should not be viewed as an accurate estimate of X's overall level of cognitive functioning. A more meaningful assessment of his potential can be gained by examining each scale individually.

X's specific scores are listed in the table below:

Wechsler Adult Intelligence Scale-Fourth Edition (WAIS-IV)

Scale	Sum of Scaled Scores	Composite Scores	Percentile Rank	95% Confidence Interval	Qualitative Description
Verbal Comprehension	35	108	70	102-113	Average
Perceptual Reasoning	42	123	94	116-128	Superior
Working Memory	19	97	42	90-104	Average
Processing Speed	20	100	50	92-108	Average
Full Scale	116	110	75	106-114	High Average
General Ability	77	118	88	113-122	High Average

Verbal Comprehension Subtests Summary

Subtest	Raw Score	Scaled Score	Percentile Rank
Similarities	23	10	50
Vocabulary	37	12	75
Information	17	13	84

Perceptual Reasoning Subtests Summary

Subtest	Raw Score	Scaled Score	Percentile Rank
Block Design	54	12	75
Matrix Reasoning	23	13	84
Visual Puzzles	25	17	99

Working Memory Subtests Summary

Subtest	Raw Score	Scaled Score	Percentile Rank
Digit Span	22	7	16
Arithmetic	16	12	75

Processing Speed Subtests Summary

Subtest	Raw Score	Scaled Score	Percentile Rank
Symbol Search	43	13	84
Coding	57	7	16

The WAIS-IV is divided into four indices, each of which measures an important aspect of intellectual functioning. X's performance was compared to same-aged peers. For reference, a

Composite score of 90-109 is considered to be within the Average range. X performed within the Average range on tasks of language abilities (Verbal Comprehension Index, 70th percentile). He scored in the Superior range on tasks involving visual processing and problem solving abilities and fell in the 94th percentile. X performed in the Average range on tasks of working memory (42nd percentile) and tasks of graphomotor speed and accuracy (Processing Speed, 50th percentile).

Within the verbal comprehension domain, X's performance showed consistency in the Average to High Average range. His ability to describe similarities between pairs of objects fell in the Average range and in the 50th percentile. His ability to define vocabulary words fell in the Average range and 75th percentile. Lastly, his general knowledge fell in the 84th percentile and in the High Average range.

Within the perceptual reasoning domain, when asked to reproduce abstract designs using blocks from a model within time constraints, X's performance fell in the Average range and in the 75th percentile. On Matrix Reasoning, X's abilities fell in the 84th percentile and the High Average range when asked to identify the missing component of a logic-based puzzle. The Visual Puzzles subtest measures spatial visual-perceptual reasoning ability and X scored in the Very Superior range and 99th percentile on this task. From these scores, it appeared as though visual reasoning and manipulation may be a strength for X, which can contribute to his career aspirations of engineering.

With regard to working memory, X's performance when asked to repeat progressively longer sequences of numbers verbatim, in reverse order, and in ascending order, fell in the 16th percentile and in the Low Average range. However, when asked to listen to math word problems being read to him, X performed in the 75th percentile, in the Average range. These results suggested that X is more capable of remembering and manipulating meaningful numbers, such as those in the math word problems, than meaningless numbers being read in any sequence.

On tests of processing speed, X's performance showed some variability. His performance fell in the 84th percentile, or the High Average range when asked to discriminate symbols under timed conditions. However, on a task that asked X to match symbols to number using a key, he fell in the 16th percentile and in the Low Average range of functioning. It should be noted that on the Coding subtest, X initially planned to match the number to the symbol by matching all the 1's first, 2's second, 3's third, and so on, until the examiner informed him that he must go in order after completing each row at a time. The task of having to continuously shift his mind depending on the next number and associated symbol may have slowed him down on this measure. X also struggled with the upside down "V" symbol, which he turned into an "A" by adding a line in the middle, several times.

In summary, X's abilities showed strengths in areas that require more visual abilities whereas he shows more weakness in tasks measuring his verbal abilities. Additionally, his results suggested that he is more likely to make sense of things that are presented to him if he sees them as having meaning.

ACADEMIC ACHIEVEMENT SKILLS:

X's academic achievement skills were screened using the Woodcock Johnson-Test of Achievement, Third Edition (WJ-III), a select subtest of the Test of Written Language, Fourth Edition (TOWL-IV), the Boston Naming Test (BNT), and the Nelson-Denny Reading Test. His specific scores for these tasks are listed in the Appendix.

X's academic achievement skills were assessed using the Woodcock-Johnson, Third Edition (WJ-III), Test of Achievement Form A. His performance in each broad category was compared to same-grade peers using a standard score range, and an additional interpretation of academic task performance is provided. X's overall academic skills fell within the Low Average range (SS=82; 11th percentile). His grade equivalent for overall academic skills was comparable to an individual who had completed half of 6th grade.

Reading

Broad Reading measures an individual's ability to accurately pronounce letters and words (Letter-Word Identification) and read within time constraints (Reading Fluency). Word Attack requires grapheme to phoneme translations of unfamiliar printed words. On the WJ-III, X's overall reading skills fell within the Low Average range (SS=85; 15th percentile). When asked to read a list of progressively more difficult words (Letter-Word Identification), his score fell within the Low Average range, in the 20th percentile. X's speed and ease of decoding was measured by having him read a series of short sentences and identify whether the statement was True or False by circling his response. For this task, X's performance fell in the Average range and in the 67th percentile. When asked to pronounce nonsense words of increasing complexity (Word Attack), X's score fell in the 20th percentile, in the Low Average range.

The Nelson-Denny Reading Test was administered as a second measure of X's functional reading skill (comprehension). He was asked to read a series of passages and answer multiple-choice comprehension questions within a twenty-minute time limit. After measuring X's reading rate, which fell within the Borderline range (1st percentile), he proceeded to read the questions and scan the passages for the answer. X was given an additional twenty minutes to complete the questions. However, X only used an additional 2 minutes and 50 seconds and his performance did not improve with the extra time he did use. After the initial 20 minutes, his scores fell in the 64th percentile, however, with additional time; his performance fell in the 54th percentile, in the Average range. On this measure, X did not appear to benefit from the allowance of extended time.

The Boston Naming Test was used to get a better understanding of X's previous diagnosis of word aphasia. His performance, however, fell in the Average range and his results did not show significant concern with recognizing and retrieving words.

Mathematics

X's math skills fell in the Average range and in the 52nd percentile. His ability to perform a series of paper-and-pencil math calculations fell in the 62nd percentile, in the Average range. X's abilities of calculation speed and accuracy fell in the 30th percentile, or the Average range. It is interesting to note that on the untimed calculations, X immediately crossed out several problems he did not want to attempt because they would take too long without a calculator. When comparing X's current performance on math measures to his previous evaluation by Dr. Conlon,

there appears to be a discrepancy between his skills. For his previous evaluation on 05/09/2014, the WRAT-4, which is a brief screening measure, was used whereas the WJ-III, which is a formal, academic measure that consists of three separate math performances, was used for his current evaluation. The difference between the nature of the measures used may explain the discrepancy in his performance between May 2014 and September 2014.

Written Language

On the WJ-III, Broad Written Language evaluated X's ability to spell increasingly complex words, compose sentences answering a prompt, and create sentences that utilize verbal cues presented to them. Overall, X's abilities fell in the Low Average range in the 15th percentile. On a test of written spelling, he scored in the Profound range, in the 1st percentile. His written expression was measured by having to compose sentences to a verbal and/or visual prompt; his performance on this task was in the Average range and fell in the 59th percentile. X's writing fluency (speed and ease) was measured by having him formulate simple sentences to describe a picture when using three stimulus words within a time constraint. He scored within the Low Average range and in the 23rd percentile. On this task, X's performance suffered because he would write sentences that either didn't necessarily make sense, or they did not describe the picture. For example, with a picture of a hand putting mail in a mailbox, X wrote, "I placed a stamp on a coconut." This sentence used the three provided words; however, it did not describe the picture.

The TOWL-4 was also used to assess X's written language abilities. For this task, X was given 15 minutes to write a story about a provided picture. Although his performance fell in the Average range, this measure does not penalize for spelling errors, changes in verb tense, or syntax, all of which X struggled with throughout his writing sample. His written language contained many spelling errors and he was unable to consistently use the same verb tense throughout his story. Analysis of his written language essay was significant for multiple spelling errors, poor grammar and syntax, and inconsistent verb tense.

Overall, X's most significant deficits were in his vocabulary. Reportedly, X does not like to use big words in the fear of misspelling them and instead, he used multiple smaller words to describe a concept. His spelling skills are significantly weak and his overall written language functioning was significant for multiple errors.

LANGUAGE/VERBAL MEMORY

X's language and verbal memory functioning was examined by using the California Verbal Learning Test-Second Edition (CVLT-II); the Wechsler Adult Intelligence Scale-Fourth Edition (WAIS-IV), and the Woodcock-Johnson, Third Edition (WJ-III) Test of Academic Achievement Form A.

The WAIS-IV was employed to assess X's language. On the Verbal Comprehension Index (VCI), which measures word knowledge and verbal fluency, and is related to acquired knowledge and verbal reasoning ability, X obtained a score of 108. This score fell in the 70th percentile and in the Average range of functioning.

On the CVLT-II, a serial word-list learning test intended to measure verbal memory, X's overall recall across five trials fell in the High Average range of functioning. On the first trial, X's ability to recall items from the list fell in the Average range and in the 50th percentile. X's performance showed improvement of memory from the first time he heard the list to the 5th time he heard the list. When read a new list of words after hearing the original list five times, X's ability to recall the new list fell in the Average range, in the 68th percentile.

After a short delay, X was asked to recite the original list, where his ability fell in the Average range and in the 68th percentile and X performed at the same level when categorically cued. After a long delay, X's performance again fell in the 84th percentile, in the High Average range. However, upon categorical cueing, X's performance fell in the 32nd percentile, or in the Average range. Upon recognition, X performed in the Average range and 32nd percentile when given a list of items and asked to identify which words were on the original word list. Throughout this test, X continually used "bookshelf" and "bookcase" interchangeably. His difficulty in distinguishing letters and words may have affected his ability to accurately recall the exact word from the lists.

VISUAL SPATIAL SKILLS/VISUAL MEMORY

X's visual memory skills were evaluated using the Wechsler Adult Intelligence Scale – Fourth Edition (WAIS-IV), the Rey-Osterrieth Complex Figure Test (RCFT), and the Beery-Buktenica Developmental Test of Visual Motor Integration, 6th Edition (VMI).

On the WAIS-IV, X completed several tasks that required the use of visual-spatial skills and visual memory, including Block Design, Matrix Reasoning, Visual Puzzles, Coding, and Symbol Search. X scored within the Average range of functioning on Block Design (75th percentile). He scored in the High Average range on Matrix Reasoning, in the 84th percentile and he performed in the 99th percentile, the Very Superior range on Visual Puzzles. While X scored in the 84th percentile, High Average range, on Symbol Search, he only scored in the Low Average range, at the 16th percentile on Coding.

X's visual memory was also assessed with the RCFT, which examined the extent to which X was able to recall and reconstruct a large, intricately detailed design. X's performance on the immediate recall task fell in the Superior range (96th percentile) and his delayed recall task fell in the Average range (77th percentile). When asked to recognize individual shapes from the figure, X's abilities fell in the Average range of functioning (63rd percentile). Throughout the task, X verbally stated that he would be unable to successfully complete this task. Although he required some encouragement to complete the task, as his results show, X very successfully completed this task again suggesting his strengths in visually based tasks versus verbally based tasks.

X also completed the VMI, a measure of visual motor integration; he performed within the Average range (61st percentile). On this measure, X was asked to draw replicas of increasingly difficult shapes. Behaviorally, X was persistent upon this task and enjoyed attempting to recreate the more challenging items, although he did repeatedly ask for an eraser and if he could turn the response booklet. X's scores suggested he had strong motor functioning and his

approach to the task was a display of his determination to successfully complete something that was of interest to him.

In sum, these findings suggested that X's visual spatial skills and visual-motor skills are Average and appear to be evenly developed, in comparison with same-aged peers. When compared to X's own abilities, visual spatial skills and visual-motor skills appear to be a strength.

SUSTAINED ATTENTION/BEHAVIORAL CONTROL

X's ability to sustain attention and show associated behavioral control was assessed using informal observation, the Conners 3 Parent and Self-Report, the Behavior Rating Inventory of Executive Functioning (BRIEF, Parent and Self-Report forms), and the IVA Plus Continuous Performance Test (IVA+).

Throughout both sessions of testing, X was able to obtain and sustain attention. He did not display behaviors of hyperactivity and generally sat still in his seat. Once given directions for a task, X needed little to no encouragement to complete the task and he required no redirection to stay on task. X took one break during testing to eat lunch.

The Conners 3 is a self-report measure that was administered to X's mother as well as to X to assess X's level of inattention, hyperactivity/impulsivity, and learning problems. As a measure, it yields data on various domains of behavior related to attention deficit/hyperactivity disorder. X's mother did not endorse any items to elevate the scores to a clinically significant level. However, X's responses yielded a t-score of 65, which can be clinically significant, for Conduct Disorder. It is interesting to note that, through observation, X did not appear to have any issues with conduct.

The BRIEF is another measure completed by both Mrs. X and X and it is intended to assess specific domains of executive functions. Responses from X's mother endorsed items regarding both task-oriented monitoring and self-monitoring. Task-oriented monitoring refers to work-checking habits and self-monitoring refers to interpersonal awareness. Although X's scores in this area were within normal limits, this was the scale that was most highly elevated.

X was administered the IVA+, a computerized test of attention and response inhibition. In general, he demonstrated sustained auditory attention and sustained visual attention in the Superior range. X displayed well-developed attention for both auditory and visual stimuli; however, his persistency was slightly lower on auditory attention. Overall, X's sustained attention was well developed.

EXECUTIVE FUNCTIONING

X's executive functioning capacities were examined using the Wechsler Adult Intelligence Scale-Fourth Edition (WAIS-IV), the Wisconsin Card Sorting Test, 4th Edition (WCST), the Rey-Osterrieth Complex Figure Test (RCFT), The Trail Making Test (A & B), the Behavior Rating Inventory of Executive Functioning (BRIEF, Parent and Self-Report forms), and the Conners 3 (Parent and Self-Report forms).

In general, tests of executive functioning measured X's ability to plan and organize, consider alternate solutions to novel problems, and engage in strategy formulation. The WAIS-IV examined X's ability to organize auditory information and generate strategies to help him remember and recall the information. As previously noted, X performed well on Arithmetic which required him to organize auditory information and manipulate it while recalling the information that was orally presented. On tasks that required rote memorization, however, such as when asked to repeat an increasingly long sequence of numbers, X did not perform as well as on Arithmetic.

On the WCST, X fell in the Average range, in the 65th percentile. X completed all six categories and required 11 trials to complete the first category. During the task, X seemed overly confident in his abilities and often made remarks suggesting the program did not know which sequence of cards it wanted to use. X's Learning to Learn score indicated that he did not learn the sequence of cards as he completed the trials to the extent his other scores show that he could have.

Behavioral observations from X's performance on the RCFT suggested that X has a great strength in visual memory. He was able to replicate the complex figure with ease and accuracy through both short and long delays.

Performance on the Trail Making Tests fell within the Average range on both a simple measure of visual-spatial tracking in a field of numbers (Trails A; 84th percentile), as well as a sequencing task that required X to rapidly alternate between numbers and letters (Trails B; 95th percentile).

X and his mother completed the BRIEF and Conners 3 to assess X's level of executive functioning. Neither X's nor his mother's responses elevated any concerns to a clinically significant level.

In summary, X's performance on tasks related to executive functioning fall in the Average range, suggesting that he does not have difficulty quickly shifting his thoughts and carrying out tasks in succession that may require different parts of his brain to successfully complete them.

SENSORY AND MOTOR FUNCTIONING

X's sensory and motor functioning was assessed using clinical observation, Dunn Sensory Profile (Parent and Self-forms), the Lafayette Grooved Pegboard Test, and the Beery-Buktenica Developmental Test of Visual-Motor Integration (VMI).

Throughout testing, it was observed that X was right-handed and held his pencil with a tripod grasp, which was appropriate for his age. Writing production yielded difficult to read handwriting.

The Lafayette Grooved Pegboard Test was administered to assess X's fine motor skills, specifically, fine motor speed and dexterity. His performance fell in the Average range when using his dominant (Right) hand. He also performed in the Average range when using his non-dominant (Left) hand. X was not observed to have any difficulty using just one hand at a time, or having any difficulty grasping the pegs without dropping them. X's motor functioning was

further assessed using the VMI and, as previously mentioned, X's performance on the VMI fell within the Average range (61st percentile).

X and his mother completed the Dunn Sensory Profiles. On the short form, X's mother endorsed his fear of heights which elevated X's Movement Sensitivity score. X's responses did not endorse any categories and he fell in the "Similar to Most People" rating. It is interesting to note that during the interview, Mrs. X mentioned that X is sometimes easily bothered by tags on shirts. In summary, X does not display deficits in his sensory and motor functioning.

PSYCHOLOGICAL FUNCTIONING

X's adjustment and psychological functioning was assessed with the Behavior Assessment Scale for Children, Second Edition (BASC-2; Parent Form), the Conners 3 (Parent and Self-Report), and a clinical interview with Mrs. X and X.

Interviews

A formal interview was conducted with Mrs. X to learn more about X's current social-emotional functioning. X's mother described X as a sensitive, compassionate person. Socially, Mrs. X described her son as having several friends, however, both Mrs. X and X reported that he enjoys playing with his siblings most.

X was easy to engage in testing and rapport was easily built and maintained throughout the testing session. He did not require redirection or encouragement to stay on task or to complete tasks and worked rather independently once provided the directions.

Rating Scales

Responses on the BASC-2 did not show concerns in any areas related to X's psychological functioning. Mrs. X and X also completed the Conners 3 on which neither endorsed items to a clinically significant level. Overall, X does not appear to demonstrate significant symptoms of psychological distress.

DIAGNOSTIC IMPRESSIONS

(The DSM-5 was utilized to provide diagnostic clarification of X's current presentation. ICD-10 codes are also shown parenthetically. The DSM-5 is the fifth edition of the Diagnostic and Statistical Manual of Mental Disorders and highlights a single axis recording procedure. Diagnostic and procedural changes have been made from the previous version of the DSM-IV-TR to the new DSM-5).

315.20 (F81.81)	<u>Specific Learning Disorder, with Impairment in Written Expression, Moderate</u>
315.00 (F81.0)	<u>Specific Learning Disorder, with Impairment in Reading, Mild</u>

X carries prior diagnoses of word aphasia and autism; however, current test data reflect problems with aspects of reading, spelling, and writing. These deficits appear to be developmentally based. X's weaknesses in spelling, reading, and writing do not appear to fit neatly into the DSM-5 diagnosis of a language disorder (Aphasia) due to intact expressive and receptive language functioning on current test measures. Instead, X's difficulties seem to best fit under the umbrella of developmental disorders in the area of written expression and reading.

A diagnosis of Specific Learning Disorder, with Impairment in Written Expression, was given based on X's difficulties with spelling and with written expression. X has persistent difficulties acquiring and using language in written language including deficits in spelling and sentence structure. X's language abilities are below what is expected of someone his age and grade level. According to reports, X's difficulties in this area have been noted since his early development. While X has strengths in expressive and receptive language, his skills in written language are generally weaker. X has difficulty with spelling, sentence structure, and general grammar. Poor spelling can impact reading and individuals with a similar profile to X's often have difficulty with aspects of reading and reading fluency. Analysis of X's reading profile, reflects weak sight word recognition and sight word fluency.

Despite his previous diagnosis of Autism from Pueblo City Schools, X's current evaluation does not provide enough data to support a current diagnosis of Autism. Socially, he has some peculiar traits and social interactions appear forced and awkward at times. In conversation, X appears to interpret things literally and although his vocabulary is average, he speaks in a "scholarly/bookish" manner. Further, X has very specific interests, including video games, Legos, and Tae Kwon Do and can talk about a topic of interest to him for long periods of time without changing the subject.

Overall, analysis of X's profile reveals a pattern of advanced visual problem solving abilities in the context of relatively reduced language based skills. Given this, he is likely to excel in tasks that involve visual manipulation and analysis and that do not involve a verbal component. This finding supports his reported history of strengths in math and engineering related activities. He is likely to be attracted to activities that capitalize on these specific strengths.

SUMMARY

X X is a 16-year-old, right handed, Caucasian male whose parents, X and X X, were seeking an evaluation for academic accommodations for X. The current evaluation was sought to provide information related to X's current level of functioning to determine academic accommodations. The current findings revealed impairment on tasks requiring verbal and written language abilities.

Cognitive Functioning and Academic Learning:

Taken together, test data revealed High Average cognitive performance (WAIS-IV). Academic achievement functioning was generally high across multiple learning measures. His difficulty with aspects of written language and overall spelling, negatively affected his results and are the primary indication of his diagnosis.

Sustained Attention, Motor Activity, and Executive Functioning:

Qualitative analysis of X's behavior and reports provided by his mother as well as himself, indicate no issues of inattention or executive functioning deficits. X demonstrated little difficulty with maintaining focus and attention throughout testing and did not require redirection, encouragement, or reminders to stay on task.

Motor Functioning:

Behavioral observations and qualitative analyses of X's motor functioning revealed no concern regarding aspects of both gross and fine motor functioning. Assessment of fine motor skills (VMI, Pegs) revealed strengths with dexterity and fine motor control.

Psychological Functioning:

Although rapport was easily established and maintained with X, he did display some interesting behaviors (e.g. social rigidity, literal interpretation of conversations, forced humor).

However, there is no current indication of depression or anxiety. Further, X's parents appear to be committed to his continued growth and development, and are willing to provide the necessary support for him to progress. With appropriate coordination between home, school, and the implementation of the accommodations listed below, it is felt that significant progress can be made.

RECOMMENDATIONS

The following academic recommendations should be discussed and considered by X's mother. While it is this examiner's professional opinion that all of the recommendations are appropriate and necessary for improving X's overall functioning, it is the responsibility of X's parents to determine which, if not all, interventions will be implemented.

1. A copy of this report should be shared with X's family, current school, and members of his educational team.
2. The current evaluation indicates that X requires specific school based accommodations given his current diagnoses. Although he presents as scholarly, X's difficulties with spelling and words appear to significantly negatively impact his success in a school setting. Through testing and observation it was noted that X appears to work at a reduced rate.
3. The following accommodations are recommended to assist X to function appropriately in the school setting, in light of his current diagnostic presentation:
 - a. It is important for all staff working with X to have training in working with students who have learning disabilities. It is recommended that X's future teachers be provided with copies of this report, as well as specific information regarding X's strengths and weaknesses.
 - b. For general assignments, quizzes, and standardized testing, it is recommended that X be provided with a word processor to assist in spelling.
 - c. Due to X's slower reading rate and reduced processing speed, he should be considered for extended time on standardized tests (time and a half).
4. A follow-up neuropsychological evaluation should be conducted in 1 year in order to reassess X's ongoing functioning.

ADDITIONAL RECOMMENDATIONS:

1. X would benefit from participation in a social skills group to help him develop age-appropriate peer relationships. He has a tendency to take things very literally and would

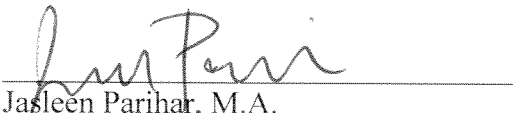
benefit from a social skills group to work on social connectedness and forming positive social interactions.

2. The Xs may also benefit from participation with a support group for families of children with autism spectrum disorders, such as The Arc (Northern Chesapeake Region), in order to network with other caregivers and gain access to resources in their community.
3. The Xs may also want to consider the following books as a reference to help them as they strive to better understand how to best support X:
 - a. *Smart Kids with Learning Difficulties: Overcoming Obstacles and Realizing Potential* by Rich Weinfeld, Sue Jeweler, Linda Barnes-Robinson, and Betty Shevitz
 - b. *Self-Advocacy Skills for Students with Learning Disabilities: Making It Happen in College and Beyond* by Henry B. Reiff, PhD

It was a pleasure to work with X and I hope that this report helps to facilitate his future development. If there are any questions regarding this evaluation, please feel free to contact me at 703-231-5117 or via email at info@drpacos.com.



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Declaration: It should be noted that the above is a summary of my findings and conclusions to date and are subject to modification based on additional information. The examiner believes that she has correctly characterized the information that was gathered by her and presented in this report.

APPENDIX

Scores should only be shared with a qualified provider. Scores should not be interpreted in isolation or without the text of the provided narrative. Data is confidential.

The Beery-Buktenica Developmental Test of Visual-Motor Integration (VMI)	
	<u>VMI</u>
Raw Scores	29
Standard Scores	104
Scaled Scores	11
Percentiles	61

**Behavior Assessment System for Children, Second Edition
Parent Rating Scale – Adolescent (PRS-A)**

<u>Scale</u>	<u>T-Score</u>	<u>Percentile</u>	<u>Scale</u>	<u>T-Score</u>	<u>Percentile</u>
Hyperactivity	46	40	Somatization	40	13
Attention Problems	54	67	Sense of Inadequacy	44	32
Relations with Parents	55	64	Depression	41	15
Interpersonal Relations	56	68	Anxiety	44	30
Self-Esteem	59	84	Social Stress	39	12
Self-Reliance	45	31	Locus of Control	40	17
Attitude to School	52	63	Atypicality	41	12
Attitude to Teachers	45	37	Sensation Seeking	52	58

Behavior Rating Inventory of Executive Function – Parent Form

<u>Index</u>	<u>T-Score</u>	<u>% Ranking</u>
Behavioral Regulation Index (BRI)	44	43
Metacognition Index (MI)	43	33
Global Executive Composite	43	32
Behavioral Regulation Index (BRI)	Metacognition Index (MI)	

<u>Scale</u>	<u>T-Score</u>	<u>% Ranking</u>	<u>Scale</u>	<u>T-Score</u>	<u>% Ranking</u>
Inhibit	48	60	Initiate	39	27
Shift	43	41	Working Memory	42	38
Emotional Control	43	44	Plan/Organize	41	28
Org. of Materials	46	45	Monitor	51	59

** Clinically Significant

* Borderline

Behavior Rating Inventory of Executive Function – Self-Report Version

<u>Index</u>	<u>T-Score</u>	<u>% Ranking</u>
Behavioral Regulation Index (BRI)	40	17
Metacognition Index (MI)	47	44
Global Executive Composite	43	28

Behavioral Regulation Index (BRI)			Index/Scale		
<u>Scale</u>	<u>T-Score</u>	<u>% Ranking</u>	<u>Scale</u>	<u>T-Score</u>	<u>% Ranking</u>
Working Memory	49	52	Inhibit	46	42
Plan/Organize	48	46	Shift	40	20
Organization of Materials	46	39	Emotional Control	38	7
Task Completion	47	45	Monitor	37	9

** Clinically Significant

<u>Subscale</u>	<u>Raw Score</u>	<u>T Score</u>	<u>Percentile</u>	<u>90% C.I.</u>
Behavioral Shift	6	42	24	40-44
Cognitive Shift	6	41	22	39-43

<u>Scale</u>	<u>Raw Score</u>	<u>Cumulative Percentile</u>	<u>Protocol Classification</u>
Negativity	0	≤ 98	Acceptable
Inconsistency	5	≤ 98	Acceptable

Boston Naming Test

<u>Raw Score</u>	<u>T-Score</u>	<u>% Ranking</u>	<u>Descriptor</u>
56	54	68	Average

California Verbal Learning Test-Second Edition (CVLT-II)

<u>Measures</u>	<u>Raw Score</u>	<u>T-Score/Z-Score</u>	<u>% Ranking</u>
List A Total Trials 1-5	61	61	86
List A Trial 1 Free Recall	7	0	50
List A Trial 5 Free Recall	15	1.0	84
List B Free Recall	8	0.5	68
List A Short-Delay Free Recall	13	0.5	68
List A Short-Delay Cued Recall	13	0.5	68
List A Long-Delay Free Recall	14	1.0	84
List A Long-Delay Cued Recall	12	-0.5	32
Correct Recognition Hits	15	-0.5	32

Conners 3 – Parent

Scales	A	B	C	D	E	F	G	H	I	J	K
T-Score	41	48	56	≤40	52	54	51	≤40	50	44	55
A – Inattention B – Hyper./Impuls. C – Learning Problems			D – Executive Functioning E – Aggression F – Peer Relations			G – CGI Total H – DSM-IV ADHD Inat. I – DSM-IV ADHD H/I			J – DSM-IV Conduct K – DSM-IV Oppositional		

*Elevated

Conners 3 – Self-Report

Scales	A	B	C	D	E	F	G	H	I
T-Score	41	53	53	58	50	44	53	65	57

A – Inattention	D – Aggression	G – DSM-IV ADHD H/I
B – Hyper./Impuls.	E – Family Relations	H – DSM-IV Conduct
C – Learning Problems	F – DSM-IV ADHD Inat.	I – DSM-IV Oppositional

Lafayette Grooved Pegboard Test

	<u>Standard Score</u>	<u>T-Score</u>	<u>% Ranking</u>
Dominant Hand	100.01	50	Average
Nondominant Hand	100.00	50	Average

IVA+ Plus Test of Auditory and Visual Attention

Sustained Auditory Attention Quotient	103
Sustained Visual Attention Quotient	106

Nelson-Denny Reading Test, Form G (Comprehension)

	<u>Raw Score</u>	<u>Standard Score</u>	<u>% Ranking</u>	<u>Grade Equivalent</u>
Reading Rate	147	173	1	--
Comprehension	50	206	64	12.6
Comprehension (Extended Time)	60	198	54	10.9

Rey Complex Figure Test and Recognition Trial

	<u>Raw Score</u>	<u>T-Score</u>	<u>% Ranking</u>
Immediate Recall	30	67	96
Delayed Recall	34	77	>99
Recognition Total Correct	23	63	90

Recognition True Positive	11	--	>16
Recognition False Positives	0	--	>16
Recognition True Negatives	12	--	>16
Recognition False Negatives	1	--	>16

Test of Written Language – Fourth Edition (TOWL-4)

	<u>Scaled Score</u>	<u>T-Score</u>	<u>% Ranking</u>
Story Composition	10	50	50

Trail Making Test

	<u>Scaled Score</u>	<u>T-Score</u>	<u>% Ranking</u>
Trail A	13	60	84
Trail B	15	64	95

Wechsler Adult Intelligence Scale-Fourth Edition (WAIS-IV)

Scale	Sum of Scaled Scores	Composite Scores	Percentile Rank	95% Confidence Interval	Qualitative Description
Verbal Comprehension	35	108	70	102-113	Average
Perceptual Reasoning	42	123	94	116-128	Superior
Working Memory	19	97	42	90-104	Average
Processing Speed	20	100	50	92-108	Average
Full Scale	116	110	75	106-114	High Average
General Ability	77	118	88	113-122	High Average

Verbal Comprehension Subtests Summary

Subtest	Raw Score	Scaled Score	Percentile Rank
Similarities	23	10	50
Vocabulary	37	12	75
Information	17	13	84

Perceptual Reasoning Subtests Summary

Subtest	Raw Score	Scaled Score	Percentile Rank
Block Design	54	12	75
Matrix Reasoning	23	13	84
Visual Puzzles	25	17	99

Working Memory Subtests Summary

Subtest	Raw Score	Scaled Score	Percentile Rank
Digit Span	22	7	16
Arithmetic	16	12	75

Processing Speed Subtests Summary

Subtest	Raw Score	Scaled Score	Percentile Rank
Symbol Search	43	13	84
Coding	57	7	16

Wisconsin Card Sorting Test, Computer Version 4**Trials Administered:****74****Total Correct:****65****WCST Scores**

	<u>Raw Score</u>	<u>Standard Score*</u>	<u>T-Score*</u>	<u>% Ranking*</u>
Total Errors	9	122	65	93
Perseverative Responses	6	121	64	92
Perseverative Errors	6	120	63	91
Nonperseverative Errors	3	121	64	92
Conceptual Level Responses	63	--	--	--

Categories Completed	6	--	--	>16
Trials to complete 1 st Category	11	--	--	>16
Failure to Maintain Set	0	--	--	>16
Learning to Learn	0.00	--	--	>16

*Age-Corrected

Woodcock-Johnson Tests of Achievement, Third Edition

<u>Tests</u>	<u>Age Equivalent</u>	<u>% Ranking</u>	<u>Standard Score</u>	<u>Grade Equivalent</u>
Letter-Word Identification	12-11	20	87	7.5
Reading Fluency	>30	67	107	13.3
Calculation	>23	62	105	13.0
Math Fluency	14-4	30	92	8.9
Spelling	8-6	1	65	3.1
Writing Fluency	12-5	23	89	7.0
Writing Samples	>30	90	120	>18.0
Word Attack	9-10	20	87	4.5
Broad Written Language	12-1	15	84	6.6
Academic Skills	12-0	11	82	6.6
Academic Fluency	15-7	42	97	10.1