SAMPLE OF ADOLESCENT ADHD EVALUATION.

CONFIDENTIAL

PSYCHOEDUCATIONAL EVALUATION

Name:	Sam Sample
Date of Birth:	5-23-86
Age:	16 years, 8 months
Testing Dates:	1-30-03
Tests Given:	Beery-Buktenica Developmental Test of Visual Motor Integration (VMI)
	Conners-Wells' Adolescent Self-Report Scale: Long Version (CASS: L)
	Nelson-Denny Reading Test, Form H
	Wechsler Adult Intelligence Scale - Third Edition (WAIS-III)
	Woodcock-Johnson Psychoeducational Battery - Third Edition (WJ-III)
	Tests of Achievement: Selected Subtests
	Tests of Cognitive Abilities: Selected Subtests

PRIMARY REFERRAL CONCERNS

Sam is a 16-year-old junior at Hometown High School who was referred by his college counselor for a comprehensive psycho-educational evaluation. Sam has an early history of reading delays and received services from the Reading Specialist program for three years during elementary school. His parents have provided intensive private tutoring for Sam throughout middle school and high school. Sam's parents requested this current evaluation to assess his level of functioning in preparation for the college selection and application process.

BACKGROUND INFORMATION

Developmental/Family: Sam was the product of a full-term pregnancy with no significant complications during the pregnancy or the delivery. Sam's development proceeded normally, and there are no developmental delays reported that would impair Sam's academic progress.

There is a family history for the presence of learning disorders and ADHD on the maternal side, with Sam's uncle and grandfather both displaying symptoms of short attention span and learning difficulties in the area of reading. Sam's uncle has self-medicated with drug use and dropped out of college due to these difficulties. Both of Sam's parents were good students. Sam's mother completed college and his father runs a successful family business.

Sam resides with his parents and his younger sister who is a high achiever academically.

Health/Medical: When Sam was 4-years-old, his tonsils and adenoids were removed to alleviate chronic problems with breathing, allergies, colds, and infections. This surgery helped, but Sam continued to suffer from allergies and has taken medication throughout his life for this condition. He has been receiving allergy shots for over two years, and currently receives one shot each month to manage his symptoms. Last summer, surgery was done to straighten his

septum, which was very blocked, and this has been helpful.

Social/Emotional: Sam has enjoyed positive social relationships and has established and maintained many friendships. His mother described him as "mellow and easy-going", and his teachers noted that he makes positive contributions to the class. There are no social/emotional conditions reported that would impair Sam's academic progress.

Educational: Sam has attended both public and private schools throughout his school years. He attended preschool at Happyland School, beginning at the age of three, and he attended Hometown Elementary School for grades kindergarten through six. His third grade teacher expressed concerns about his slow progress in reading and a referral was made to receive Reading Specialist services. Sam continued with these specialized services at school twice a week for three years.

Sam has attended Homerown, a private school, since the 7th grade, and has maintained a "B to C" average, with the help of intensive private tutoring on a regular basis. Progress reports were reviewed and Sam's teachers describe him as a positive, upbeat student who "seeks advice, responds well to criticism, and strives to improve his skills". There were, however, concerns expressed about his inconsistency. There seemed to be a pattern of poor test performance but of maintaining his grades by doing homework and re-doing assignments when allowed by the teacher. Teachers recommended tutoring sessions and offered to meet with him weekly, noting that he "responds well to one-on-one instruction".

In describing his learning process, Sam indicated that he has always had trouble maintaining his attention and that he has always taken longer than others to learn material and to complete his homework. He has always been a slow reader, and needs to read at a slow pace to acquire full comprehension. Even though he uses his finger to mark his place while reading, he still loses his place, which results in skipping words and whole lines in the text. He indicated that he needs a lot of help from his tutor to write essays and reports.

MENTAL STATUS and BEHAVIORAL OBSERVATIONS

Sam is a 16-year-old Caucasian teenager who used his right hand for all written work. He was well groomed and casually but appropriately dressed at each testing session. Sam cooperated fully with all assessment procedures and appeared to exert full effort on all tasks. He readily understood directions and responded appropriately. He was fully oriented to his surroundings and demonstrated appropriate interpersonal skills. His eye contact was normal, and his speech was regulated in its speed, rhythm, and tone. There was no evidence of disturbance in his emotions or his thoughts. Based upon the testing environment and Sam's level of motivation, the test results appear to be valid and interpretively useful.

ASSESSMENT RESULTS AND IMPRESSIONS

<u>Cognitive Functioning</u>: Based on the results of the WAIS-III, Sam's general cognitive ability is estimated to fall within the average range and to be greater than 42% of the adolescents his age. Verbal and nonverbal abilities appear to be evenly developed, but more specific analysis shows that there is some significant variability among Sam's cognitive processing skills. A separate discussion of these abilities will provide a more accurate profile of his cognitive and learning abilities than just looking at his global score.

In reviewing the WAIS-III Index scores, Sam's average verbal comprehension (VCI, 53rd percentile) is significantly more developed than his low average processing speed (PSI, 18th percentile), with the difference between these scores seen in 32.4% of the standardization sample. Additionally, there is a significant difference between Sam's average Working Memory (WMI, 66th percentile) and his low average Processing Speed, with this difference seen in only 17.2% of the standardization sample. This weakness in processing speed was also seen on supplemental subtests administered from the WJ-III (Processing Speed, 15th percentile).

<u>Verbal Comprehension</u> is the ability to use language for thinking and for problem solving. Sam's verbal comprehension abilities are developed at the average level (VCI, 53rd percentile), and he demonstrated adequate skill in providing oral definitions to vocabulary words (Vocabulary, 63rd percentile).

He scored at the average to low average level in his ability to formulate abstract verbal concepts, answering in an unusual pattern of missing easier items while getting more difficult items correct (Similarities, 25th). His knowledge of general information fell within the average to high average range (Information, 75th percentile). Sam's knowledge of socially appropriate behavior is within the average range (Comprehension, 63rd percentile).

<u>Auditory Processing/Phonemic Awareness</u>: Sam's performance varied significantly on two measures of auditory processing, with his overall score falling within the average range (WJ-III, Phonemic Awareness, 43rd percentile). In listening to words presented one sound at a time and then blending the sounds together to create a word, Sam scored at the low average level (WJ-III, Sound Blending, 17th percentile). However, when required to identify words that were pronounced with missing sounds/syllables, Sam scored at the high average level (WJ-III, Incomplete Words, 88th percentile).

It is unusual to see this degree of variability in these auditory skills, but it appears that Sam's test behavior interfered with his performance on the Sound Blending subtest. Both of these subtests are administered via a standardized tape recording, and Sound Blending was the first of these two subtests administered. On this subtest, Sam repeatedly answered before listening to the entire item, despite directions to wait until he heard the beep on the tape, which signaled the end of the item. On this subtest, there is the pattern of missing easier items while answering more difficult items correctly. By answering difficult items correctly, it appears that Sam possesses this auditory processing skill and that his low score is due to an impulsive response style.

<u>Attention</u>: Functioning in this domain was assessed through case history, school records, observation, self-report, and a variety of subtests, some of which also provide information about memory and processing speed. The results of those subtests are presented in those specific sections of the report and a later discussion will provide an integrated interpretation.

Sam's responses on the Conners-Wells' Adolescent Self-Report Scale: Long Version (CASS: L) revealed significant difficulties in the areas of inattention and hyperactivity/impulsivity. Based upon Sam's self-report, his scores were significant on scales measuring Cognitive Problems/Inattention (T-Score=65) and on the scales aligned with the current diagnostic criteria for ADHD: DSM-IV: Inattentive (T-Score = 74), DSM-IV Hyperactive/Impulsive (T-Score=65) and DSM-IV: Total (T-Score=73).

He endorsed items reflecting the following:

"I forget things that I have learned." – VERY OFTEN

"I tend to learn more slowly than I would like to." – VERY OFTEN

"I make careless mistakes or have trouble paying close attention to details." – VERY OFTEN

- "I don't like schoolwork where I have to think a lot" VERY OFTEN
- "I have trouble finishing my schoolwork or chores." VERY OFTEN
- "I tend to squirm and fidget." VERY OFTEN

"I have trouble concentrating on one thing at a time." - VERY OFTEN

"I like to be on the go rather than being in one place." - VERY OFTEN

"I am distracted when things are going on around me." – VERY OFTEN

<u>Working Memory</u> is a complex memory skill that requires holding information mentally while performing some active manipulation or calculation with it. Memory skills were assessed in auditory and visual domains.

<u>Auditory Memory</u>: All of the subtests on the WAIS-III Working Memory Index present numerical data orally, and Sam scored securely within the average level (WMI, 66th percentile), with even performance across tasks. He demonstrated average to high average strength in his ability to remember and re-organize letters and numbers (Letter-Number Sequencing, 75th percentile). His immediate recall of digits forwards and backwards was adequately developed (Digit Span, 50th percentile), as was his ability to perform mental math calculations (Arithmetic, 63rd percentile). His auditory memory for language, specifically a series of unrelated words, was also within the average range (Memory for Words, 71st percentile).

<u>Visual Memory</u>: Sam scored at the average level when processing purely visual information (WJ-III, Picture Recognition, 38th percentile). On this subtest, Sam was required to recognize a subset of previously presented pictures within a field of distracting pictures.

<u>Visual-Auditory Memory</u>: When required to learn and recall new information that was presented to him simultaneously with visual and auditory stimuli, Sam's performance suffered, and he scored at the low average level (WJ-III, Visual-Auditory Learning, 14th percentile).

<u>Visual-Perceptual Organization</u> is the ability to organize visual information and to reason and problem solve with visual data. This WAIS-III index score fell within the average level (POI, 42nd percentile), with some variability performance across tasks.

<u>Visual-Spatial</u>: Sam exhibited average ability on the Block Design subtest, which required him to use two-color cubes to construct replicas of two-dimensional, geometric patterns. This subtest assesses ability to mentally organize visual information. More specifically, this subtest assesses his ability to analyze part-whole relationships when information is presented spatially. Visual-spatial perception and visual perception-fine motor coordination also may influence performance on this task (Block Design, 63rd percentile).

Sam scored similarly on a spatial task that required the visualization of spatial relationships by identifying two or three pieces that form a complete target shape, become more difficult as drawings of the pieces are flipped, rotated, and more similar in appearance (WJ-III, Spatial Relations, 68th percentile).

His performance on these two subtests indicates that his spatial abilities are adequately developed and that he can visualize as well as manipulate objects to organize spatial information.

Sam demonstrated average development in his fluid reasoning skills (Matrix Reasoning, 63rd percentile). His performance on this measure reflects his capacity to solve visual, analytical problems using new information.

<u>Visual Attention/Sequencing</u>: On the Picture Arrangement subtest, Sam was required to rearrange pictures of people and scenes into meaningful sequences. Attention to detail was important, as well as common sense and social judgment. He scored at the lowest point within the average level on this task (Picture Arrangement, 25th percentile).

Sam scored at the low average level on a subtest that required visual attention to detail in pictures of realistic scenes. The Picture Completion subtest required him to identify the missing part in pictures of common objects and scenes. He needed to detect essential details and to differentiate them from nonessential details. The subtest may be influenced by general alertness to the world around him and long-term visual memory (Picture Completion, 16th percentile).

<u>Visual-Motor Integration</u>: Sam's visual-motor integration skills fall below the low average range (VMI, 5th percentile). His reproductions of the designs were incorrect at the 10-year-old level, with errors of missing angles, of poor horizontal alignment of angles of a diamond shape, and of failure to recognize overlapping and under-lapping lines.

Processing Speed is the ability to process information in an automatic, fluent manner. Research suggests that when mental operations are speedy, more information can be processed without overloading the cognitive system. Individuals with deficient processing speed often experience frustration and failure and need high levels of motivation and persistence to compensate for pervasive deficit. Integrated analysis of WAIS-III and WJ-III subtests reveals average to low average performance in this domain.

<u>Visual Processing Speed</u>: Sam scored within the low average range on this WAIS-III index (PSI, 18th percentile), with some variability in task performance. He demonstrated average ability when required to visually track and match abstract symbols at a fast pace (Symbol Search, 37th percentile). Sam performed at the weakest level when required to code abstract symbols accurately (Digit Symbol-Coding, 9th percentile).

He scored at the low average level when required to find two numbers that matched from a series of numbers (Visual Matching, 24th percentile). He scored similarly when required to find objects paired together within an array of the same objects (Pair Cancellation, 22nd percentile).

On a test of cognitive efficiency that measured the processing of simple concepts, Sam scored within the low average range (WJ-III, Decision Speed, 11th percentile). He was required to locate two pictures that are most similar conceptually, so this was a combination of visual processing and verbal concept formation.

<u>Verbal Processing Speed</u>: Several of the WJ-III subtests measured verbal fluency. Sam was required to name as many examples as possible from a given category within a 1-minute time period. Sam scored at the low average level in retrieving this stored knowledge (WJ-III, Retrieval Fluency, 20th percentile). This was purely a verbal task and he had to name familiar things, so his slower performance reflects his pace of processing as well as his word retrieval ability.

<u>Academic Achievement</u>: Development in academic skills was assessed in the areas of reading, math, and oral and written language.

Broad Reading: Within the reading domain, skills were assessed in the areas of sight word identification, reading vocabulary, reading comprehension, and reading fluency.

Sam obtained an average score in the identification of familiar and unfamiliar words, indicating adequate sight word acquisition (Letter-Word ID, 44th percentile). He also performed at the

average level in providing antonyms and synonyms as a measure of reading vocabulary (Reading Vocabulary, 53rd percentile). In his comprehension of short passages, Sam scored securely at the average level (Passage Comprehension, 52nd percentile). All of these subtests are untimed, and Sam's performance is consistent with his estimated verbal ability level.

When Sam's reading comprehension was measured under timed and extended time conditions, his performance suffered significantly. Under the timed condition of the Nelson-Denny test of reading comprehension, he scored at the borderline level (Timed, 10th percentile). The Nelson-Denny also provides norms for an extended time condition, but the amount of additional time allowed was not enough for Sam to improve his scores (Extended Time, 10th percentile). He did not complete all of the test items in the extended time allowed.

Sam's pace of reading was measured on two very different timed subtests. On a reading fluency task that required rapid comprehension of short sentences, Sam scored at the low average range (Reading Fluency, 15th percentile). This timed subtest required him to read brief statements and then determine if each statement was true or false (i.e., "A cow is an animal." "A fish lives on land."). In his reading of lengthier passages, which are more typical of high school material, his pace of reading was at an even slower level (Nelson-Denny, Reading Rate, 8th percentile).

When Sam is not under time pressure, he can demonstrate that he possesses average skills in phonemic awareness, sight word reading, reading vocabulary, and reading comprehension. When Sam is under time pressure, however, his reading test scores clearly show that he is not able to demonstrate his reading comprehension skill.

<u>Oral Language</u>: Sam's skills in this area are developed to the average level, in identifying the names of familiar objects (Picture Vocabulary, 37th percentile) and in listening to sentences and providing a single word to complete the sentence (Oral Comprehension, 73rd percentile).

Broad Mathematics: Math skills were assessed in math calculations, math fluency, in analyzing and solving practical problems in math, and in knowledge of math concepts. Sam's math scores consistently fall within the average range. When required to calculate math problems with paper and pencil on an untimed test, he scored at the average level (Calculation, 73rd percentile).

When analyzing and solving practical problems in mathematics, his score falls within the average range (Applied Problems, 66th percentile). In this subtest, questions were read to him orally as he followed along from a printed version.

Sam also scored within the average range in his ability to calculate as many easy numerical math problems as he could in a 3-minute period (Math Fluency, 30th percentile). He made no errors on these simple calculations.

<u>Written Language</u>: Sam's writing skills were assessed in the areas of spelling, writing fluency, and writing samples. Sam's spelling skills are developed at the average level (Spelling, 64th percentile). This task required him to spell orally presented words.

Sam also performed at the average level in formulating and writing simple sentences quickly (Writing Fluency, 33rd percentile). This was a timed test that required him to write a sentence that relates to a given picture and to use a set of three words for each sentence.

Sam scored at the lower end of the average range when required to write very structured sentences that had to meet very specific demands (Writing Samples, 25th percentile).

<u>Analysis of Cognitive Processing Abilities and Academic Achievement</u>: Using Sam's average verbal ability as the predictor for academic achievement, his reading skills fall below the expected level on a timed reading comprehension task. There is a significant difference between his extremely low performance on a timed/extended time measure (10th percentile) and his average performance on an untimed measure of reading comprehension (52nd percentile).

It is also of great concern that the provision of extended time (approximately equivalent to timeand-a-half) was not enough time to be helpful for him, as his score did not improve between the timed and the extended time conditions. Sam was not able to complete all of the Nelson-Denny multiple-choice items even with the provision of extended time. This suggests that Sam needs the maximum amount of time allowed for school exams as well as standardized tests.

While Sam possesses the basic reading skills of phonemic awareness and sight word acquisition, he also exhibits deficits that are commonly seen among poor readers, including retrieval fluency. His lack of fluency in reading suggests that he has not acquired the automatic reading skills that would allow him to process information more efficiently. Sam's inattention and slow processing speed reduce his reading speed to a degree that is significantly lower than his oral language and reasoning abilities. Sam's deficits in his visual-motor integration, visual attention to detail, and visual sequencing development further contributes to his slower pace of processing visual information.

In an analysis of the discrepancy between Sam's verbal ability and his achievement in reading, the test results identify Sam as having a Specific Learning Disability in the area of reading, under timed conditions, with functional deficits in the areas of visual-motor integration and processing speed. The results of this evaluation also identify Sam as meeting diagnostic criteria for the inattentive type of ADHD.

This provides explanation for Sam's reported need to re-read material and to study for longer periods of time. With deficits in attention and processing speed, he needs much more time to review and practice in order to comprehend and to retain the information.

Social/Emotional Functioning: There are no significant concerns reported regarding Sam's functioning in these areas, but screening measures were administered to assess his current emotional functioning. Responses fell within normal limits.

A review of Progress Reports from his high school teachers indicates that Sam behaves appropriately in class, contributes to class discussions in a meaningful way, and displays a positive attitude that is valued by teachers and peers.

Sam's family environment is very stable and supportive, there have been no traumatic events in his life, and he has well-developed social skills.

Based upon information from these various sources, Sam has not displayed any serious emotional disturbance that would provide an explanation for learning inconsistencies. There is no alternate or co-morbid psychiatric diagnosis that explains Sam's learning issues.

SUMMARY and RECOMMENDATIONS

The results of this evaluation indicate that Sam possesses average to high average cognitive ability to learn. Sam exhibited relative strengths in his short-term auditory memory, in his fund of

general knowledge, and in his spatial organization. Functional limitations that impact his learning process include attention, visual-motor integration, verbal fluency, and visual processing speed.

When working without time pressure, Sam's academic achievement is commensurate with his verbal ability. However, when time limits are imposed, there is a significant discrepancy between Sam's average verbal comprehension ability and his lower achievement in the specific area of timed reading comprehension.

Based upon the results of this comprehensive psycho-educational evaluation, it is recommended that reasonable and appropriate educational accommodations and modifications be provided to Sam under the Americans with Disabilities Act (ADA) and Section 504 of the Rehabilitation Act of 1973. Sam is diagnosed as having a Reading Disorder (timed conditions) and ADHD, Predominantly Inattentive Type, both of which substantially limit his learning activities.

The following educational accommodations are recommended:

- 1. Double time for tests, including statewide testing and the SAT. Sam's scores on several measures of reading comprehension illustrate a clear pattern of higher achievement when provided with unlimited time and lower achievement with specific time limits. Although unlimited time is best for him, it is not reasonable or possible to request this, but double time would provide an appropriate and reasonable accommodation for him.
- 2. Separate room for test taking, in order to minimize distractions. With Sam's slower pace of processing, as well as distractibility, a setting separate from the larger group is recommended.
- 3. Preferential seating in the classroom, in order to minimize distractions.
- Note-taking assistance, as needed. Processing speed and attentional deficits may interfere with writing down all of the necessary information in a lecture format of teaching.
- 5. Use of a computer for word processing, due to deficits in visual-motor integration and processing speed.

Additionally, It is also recommended that Sam become more knowledgeable about the diagnosis of ADHD, Predominantly Inattentive Type. Prior to this evaluation, Sam and his parents suspected that inattention and distractibility were interfering with his academic progress, and the results of this evaluation confirm that diagnosis.

Sam has decided that he does not want to pursue a medication evaluation to determine if stimulant medication would be helpful to him, so it is of critical importance that he develops compensatory behavioral strategies. There are numerous resources available that are appropriate for Sam's age and for his preparation for college, including the following:

How to Reach and Teach Teenagers with ADHD by Grad L. Flick (October 2000)

<u>ADHD – A Teenager's Guide</u> by James J. Crist (January 1996)

<u>Academic Success Strategies for Adolescents with Learning Disabilities and ADHD</u> by Esther Minskoff, et. Al. (December 2002)

Learning Outside the Lines: Two Ivy League Students with Learning Disabilities and ADHD

<u>Give You the Tools for Academic Success and Educational Revolution</u> by Jonathan Mooney, David Cole (August 2000)

DSM-IV Multiaxial Diagnosis

- Axis: I 314.0 Attention Deficit Hyperactivity Disorder, Predominantly Inattentive Type
 - 315.0 Reading Disorder, timed conditions
- Axis II: V71.09 No Diagnosis
- Axis III: None
- Axis IV: Functional Deficits in visual-motor integration, processing speed and attention.
- Axis V: GAF=70

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