

Assessment Report

Name:
Age at time of testing:
Sex:
Birthdate:
Examiner -- Kurt Andrew Weber, Ph.D.
Report date

Tests Administered

Clinical Interview
Wechsler Adult Intelligence Scale -- Third Edition (WAIS-III)
Woodcock-Johnson III Tests of Cognitive Ability (WJ-III COG)
Woodcock-Johnson III Tests of Achievement (WJ-III ACH)

Reason for Evaluation

X is a college graduate seeking admission into professional school for the fall semester of 2004. Because of poor performance in mathematics courses throughout his life, he believes that he may have an undiagnosed learning disability, the concern over which forms the basis for this assessment.

Background Information

X indicated that he has had problems with his mathematics courses for much of his life. He has always found a way to complete courses effectively, while receiving passing grades that seemed to be lower than his other grades. He exclusively attended private schools, and was never evaluated for learning disabilities because he usually achieved average or above-average scores throughout his middle and high school years. He did not receive accommodations during his undergraduate education, where he completed his degree requirements with a 2.5 grade point average. He reported that he always managed to pass his math courses through a combination of effort, extra credit and partial credit. He also believes that his poor performance in undergraduate mathematics courses may hinder his ability to be accepted into professional school, and seeks to have admissions committees take any learning disability into account in determining his qualifications for acceptance.

Behavioral Observations

He arrived on time for his scheduled testing session. He was friendly and talkative, and as a result rapport was easily established. He appeared to be highly motivated during the testing session and followed the directions of the administrator. He expressed concerns over the testing process, as if it would confirm what he has always believed about himself, something he has never wanted to face -- some sense of him having something wrong with him. Testing appears to be a valid assessment of current functioning.

Results of Evaluations

Wechsler Adult Intelligence Scale – Third Edition (WAIS-III)

	IQ	PR	Description
Full Scale IQ	104	61	Average
Verbal IQ	113	81	High Average
Performance IQ	92	30	Average

Index Scores Summary

Verbal Comprehension	114	82
Perceptual Organization	99	47
Working Memory	109	73
Processing Speed	91	27

Verbal Scale Scores	SS	Performance Scale Scores	SS
Vocabulary	13	Picture Completion	8
Similarities	13	Digit Symbol-Coding	8
Arithmetic	11	Block Design	8
Digit Span	12	Matrix Reasoning	14
Information	12	Picture Arrangement	7
Comprehension	12	Symbol Search	9
Letter-Number Sequencing	12	Object Assembly	8

His IQ scores, as measured by his Full Scale IQ (FSIQ) of 104, show his general cognitive ability to be in the Average range of intellectual functioning. His verbal reasoning abilities, as measured by the Verbal IQ (VIQ) score, are in the High Average range. While his highest scores were obtained on the Vocabulary and Similarities tests and his lowest score was on the Arithmetic test, there is only a two point differential between these scores. His nonverbal reasoning abilities, as measured by the Performance IQ (PIQ), are significantly lower than his Verbal IQ scores. His Performance IQ score of 92 is at the low end of the Average range. With the exception of the Matrix Reasoning test, which generated his highest score on the entire WAIS-III, all of his scores for the tests that comprise the Performance IQ were below average, the lowest score being on Picture Arrangement.

However, there is a variation between his Verbal IQ (VIQ) and Performance IQ (PIQ) scores that is significant at the .05 level, occurring in only six percent of the population that is administered the WAIS-III. When one interprets a discrepancy such as this, it is wise to verify the discrepancy through analysis of the index scores generated by the administration of the WAIS-III.

Of his index scores, significant discrepancies exist between the following pairs of scores: Verbal Comprehension and Perceptual Organization, Verbal Comprehension and Processing Speed, and Working Memory and Processing Speed. While his Verbal Comprehension and Working Memory indices are above average, his Processing Speed Index of 91 is barely within the average range, falling nearly one and one-half standard deviations below X's VIQ and VCI scores.

It seems that there is a clear delineation between the indices that form the basis of the VIQ (Verbal Comprehension and Working Memory) and those that are the foundation of the PIQ (Perceptual Organization and Processing Speed). Because of this discrepancy, the results from the Woodcock-Johnson Tests of Achievement and Woodcock-Johnson Tests of Cognitive Ability will be compared with both his FSIQ and VIQ.

Woodcock-Johnson III Tests of Achievement (WJ-III ACH)

Achievement Tests	SS	PR
Letter-Word Identification	96	40
Reading Fluency	89	22
Story Recall	81	10
Understanding Directions	85	15
Calculation	54	0.1
Math Fluency	82	12
Spelling	101	54
Writing Fluency	87	19
Passage Comprehension	119	89
Applied Problems	87	20
Writing Samples	103	57

Most of the scores generated through the administration of the third edition of the Woodcock-Johnson Tests of Achievement (WJ-III ACH) were below what would be expected of someone with X's Full Scale IQ (FSIQ) of 104 and his Verbal IQ (VIQ) score of 113.

Letter-Word Identification

The Letter-Word Identification test requires examinees to correctly pronounce words that are presented on a page, and is devoid of context. It is a test of reading decoding ability. His standard score of 96 is below the expected range for someone of his intelligence (FSIQ = 104, VIQ of 113).

Reading Fluency

The Reading Fluency test is a timed test that requires individuals to read simple sentences quickly and determine if the statement is true or false by circling the word yes or the word no. It is a measure of reading speed, the degree of automaticity of the examinee's reading skills, and the rate at which the examinee takes tests. His standard score of 89, which is one standard deviation below his FSIQ of 104, indicates moderate deficits in these skills. The deficits appear more pronounced when compared with his VIQ of 113.

Story Recall

This test requires examinees to listen to a story and recall the basic elements that comprise it. Skills in both receptive and expressive language are required to perform the tasks. Story Recall measures linguistic competency, listening comprehension, semantic memory, and the development of basic language skills. X's score of 85 again demonstrates deficits in these skills.

Understanding Directions

The test requires examinees to listen to a specific sequence of audiotaped instructions and then follow the directions by pointing to elements of a colored image depicting a scene. The test measures the ability to listen and attend to directions as well as basic language development. His score of 85 on the Understanding Directions test is significantly below what would be expected of someone with his FSIQ of 104.

Calculation

The Calculation test requires examinees to perform basic mathematical skills that are seen as fundamental to higher

mathematics ability. The test is untimed.

He was able to perform basic addition, subtraction, multiplication and division, but stopped without correctly answering questions concerning integers. His score of 54 represents an extreme lack of ability to perform calculations, which is again significantly below what would be expected of someone with his FSIQ of 104.

Math Fluency

In the Math Fluency test, another timed test, examinees are to solve simple problems involving addition, subtraction, and multiplication at their best possible rate. His score of 82 is very nearly significantly below what would be expected of someone with his FSIQ of 104. Differences between his scores on Math Fluency and Calculation may be explained by the nature of the questions asked which fall into the range at which he can perform math calculations correctly.

Spelling

The Spelling test measures the examinee's ability to spell words correctly. His standard score of 101 is comparable to what would be expected of someone with a FSIQ of 104 and VIQ of 113.

Writing Fluency

The Writing Fluency test is a timed speed test that requires examinees to generate simple sentences with appropriate English syntactical skills. His standard score of 87 is below his FSIQ of 104 and VIQ of 113.

Passage Comprehension

In the Passage Comprehension test, the examinee reads a passage silently and provides a missing word that will make sense in context. It is a measure of reading comprehension and linguistic knowledge, and requires the examinee to use clues of syntax and meaning to comprehend contextual information. His score of 119 displays stronger-than-expected skills in these areas when compared to both the FSIQ and VIQ..

Applied Problems

In the Applied Problems test, the examinee must analyze and solve practical mathematics problems. The test is a measure of quantitative reasoning, math achievement, and math knowledge. The test is specific in measuring mathematics concerns because no reading is involved. His score of 87 on the Applied Problems test again shows a deficit in these areas.

Writing Samples

The untimed Writing Samples test requires examinees to generate meaningful written sentences in response to various cues. His Writing Samples standard score of 103 is comparable to what would be expected given his intelligence when compared with the FSIQ of 104, but slightly below when compared with his VIQ of 113..

Special Purpose Clusters	SS	PR
Oral Language	81	10
Total Achievement	84	14
Broad Reading	95	95
Broad Math	69	69
Broad Written Language	94	94
Math Calculation Skills	58	0.3
Written Expression	90	25
Academic Skills	82	11
Academic Fluency	85	16
Academic Applications	102	54

Especially of note is his Academic Fluency score of 85, which falls more than a standard deviation below his FSIQ (SS = 104) and nearly two standard deviations below his VIQ score of 113.

The tests that comprise the cluster (Reading Fluency, Writing Fluency, and Math Fluency) are speed tests, in that they are made up of simple tasks in reading, writing and mathematics, and are a measure of how quickly the examinee can perform such tasks. The Academic Fluency cluster score demonstrates that he does not process information at a rate concurrent with his general intelligence, especially when seen in conjunction with his Processing Speed Index from the WAIS-III, which is also below normal. The slow processing speed, as demonstrated by low scores on the majority of the timed achievement tests and when compared with his FSIQ of 104, suggests concerns in his ability to process information quickly and effectively. The discrepancy does not fall the requisite one and one-half standard deviations below his FSIQ. However, it does fall nearly two standard deviations below his VIQ, which is a better indicator of his ability in performing language-based skills.

Oral Language

The Oral Language cluster comprises the Story Recall and Understanding Directions tests. His standard score of 81, which is one and one-half standard deviations below his FSIQ of 104 and more than two standard deviations below his VIQ of 113, indicates that his ability is significantly below what would be expected in someone of his intelligence.

Total Achievement

The Total Achievement cluster score is composed of nine tests in the standard achievement battery. These tests are Letter-Word Identification, Reading Fluency, Passage Comprehension, Calculation, Math Fluency, Applied Problems, Spelling, Writing Fluency, and Writing Samples. The purpose of the Total Achievement score is to provide a general academic proficiency score that represents a global perspective of the individual's overall performance across various domains. When compared with his FSIQ of 104 and VIQ of 113, the Total Achievement score (84) is lower than what would be expected of someone with his intelligence.

Broad Reading

The Broad Reading cluster is made up of Letter-Word Identification, Reading Fluency and Passage Comprehension, and provides an overview of the examinee's reading abilities. His score of 95 shows that his ability is again below what would be expected in someone of his intelligence, and moderate concerns are identified in his ability to effectively internalize, comprehend and process reading material.

Broad Math

Calculation, Math Fluency and Applied Problems make up the Broad Math cluster score, which provides a general assessment of the examinee's math achievement level. His score of 69 is clearly and markedly below the level demonstrated by his overall intelligence, falling two and one-half standard deviations below his FSIQ of 104, and very nearly three standard deviations below his VIQ of 113.

Broad Written Language

The Broad Written Language cluster score is made up of the Spelling, Writing Fluency (the only untimed test in the cluster) and Writing Samples tests. As in the Broad Reading and Broad Math clusters, this cluster provides a broad view of the examinee's written language achievement. His score of 94 is again below what would be expected of someone of his intelligence.

Math Calculation Skills

His score on this cluster indicates serious concerns with his ability to perform mathematics-based tasks at his grade level.

Written Expression

Writing Samples and Writing Fluency make up the Written Expression cluster. His lower-than-expected score of 90 shows moderate to serious concerns with basic writing skills.

Academic Skills

His Academic Skills cluster score comprises Letter-Word Identification, Calculation, and Spelling. His score of 82, 22 points lower than what would be expected from a person of his FSIQ and 31 points below his VIQ, shows a moderate to serious deficit in these areas.

Academic Fluency

The Academic Fluency score provides a measure of the automaticity of reading, writing and math skills. His score of 85 indicates moderate concerns in his processing speed, and validates the other measures of processing speed administered as part of the test battery.

Academic Applications

His score of 102 on Academic Applications, a measure of his ability to apply academic knowledge, is comparable to what would be expected in someone of his intelligence. It is indeed the only score of the special purpose clusters that is comparable to his FSIQ of 104. The Passage Comprehension, Applied Problems, and Writing Samples tests comprise this cluster score.

Woodcock-Johnson III Tests of Cognitive Ability

The complete report of His Woodcock-Johnson III scores is found at the conclusion of this report.

Cognitive Tests	SS	PR
Verbal Comprehension	85	16
Visual-Auditory Learning	90	26
Spatial Relations	91	28
Sound Blending	79	8
Concept Formation	89	22
Visual Matching	102	55
Numbers Reversed	113	81
Incomplete Words	93	32
Auditory Working Memory	90	25

It appears that some of his results on the subtests are in keeping with his FSIQ of 104. However, some are more than one standard deviation below what would be expected.

Verbal Comprehension

His Verbal Comprehension score of 85, which reflects the ability to generate vocabulary words from pictures, synonyms from words presented verbally, antonyms from words presented verbally, and to complete correctly verbal analogies such as “eye is to see, as ear is to...” The verbal analogies are presented visually as well as orally. His score reflected a deficit in these skills.

Visual-Auditory Learning

Visual-Auditory Learning is a test that measures long-term storage and the ability to retrieve information about associations made between pictographic images and words. In the Visual-Auditory Learning test, the examinee is to identify a word after being presented with a verbal cue and a symbol. At first, the symbols roughly resemble crude stick figures of the word in question, but become more vague over the course of the test. His scores suggest that his ability to keep things in long-term memory is lower than what might be expected of someone with his intelligence.

Spatial Relations

In the Spatial Relations test, the examinee is asked to identify two or more pieces that comprise an image. The image remain available to examinees while they determine which elements are incorporated in it. His scores again suggests a slight inability in visuospatial skills.

Sound Blending

Perhaps of greatest concern is his score on Sound Blending. In the Sound Blending test, the examinee is presented with auditory stimuli in which complete words are presented one phoneme at a time. The examinee is to synthesize the word, and say back the entire word to the examiner. His low score suggests that he lacks the ability to do this effectively, which may be manifested in an inability to rapidly sound out, conceptualize and understand new words and perhaps experience difficulty in spelling. A low score on this test is also associated with reading disorders, especially dyslexia.

Concept Formation

In Concept Formation, examinees are to determine what rules govern the inclusion or exclusion of images that differ in size, color, shape and whether they are presented individually or in pairs. The Concept Formation test measures the ability to shift concepts and to make logical categorizations. X scored below what might be expected on the basis of his FSIQ, suggesting mild to moderate current concerns in these areas.

Visual Matching

The Visual Matching test is a speed test, in that examinees are asked to perform a relatively easy task, and are not expected to complete all of the items within the time allotted. Examinees are to identify the identical numbers from within a set of five; the task becomes progressively more difficult as the numbers progress from single-digit to two-digit and finally to three-digit numbers. Visual Matching is in essence a test of processing speed in which the examinee is presented with numbers. X's standard score is in accord with what may be expected given his FSIQ and Processing Speed Index from the administration of the WAIS-III.

Numbers Reversed

In the Numbers Reversed test, the examinee is asked to listen carefully to a series of numbers and restate them in reverse order to the examiner. His scores indicate no concerns in effectively processing auditory information in short-term memory.

Incomplete Words

In the Incomplete Words test, the examinee is presented with auditory stimuli in which one or more phonemes are omitted from words; the examinee is to complete and say the word to the examiner. The test measures auditory processing, phonemic awareness and phonetic coding. His score of 93 on this test indicates some mild concerns in these skills.

Auditory Working Memory

Auditory Working Memory is a test that measures short-term memory span and can be understood as a test of working memory and of divided attention. The examinee is presented with a series of digits and words, and is asked to present the information by stating the words in sequential order and then the numbers in order.

His score of 90 on this test appears to confound other scores that measure short-term memory, such as the Digit Span test from the WAIS-III and the Numbers Reversed test from the WJ-III Tests of Cognitive Ability. The Auditory Working Memory task appears to be more difficult than the Digit Span subtest, which consists solely of numbers. An essential difference in the tasks is that on the previous tests, examinees are to present information in reverse order; this may provide some insight into the disparities on his performance in similar tasks.

Interpretation of Results

X requested the current psychological assessment in order to determine the presence of a learning disability. When scores generated from the Wechsler Adult Intelligence Scale – Third Edition (WAIS-III) and the Woodcock-Johnson III (WJ-III) Tests of Achievement and Tests of Cognitive Ability are taken into account, clear patterns emerge that warrant the diagnosis of a mathematics-based learning disability. This diagnosis is made despite his scoring above average on the Arithmetic subtest of the WAIS-III; the Arithmetic subtest tests basic knowledge in an untimed manner, skills well within the purview of his abilities. When he is under pressure to perform these skills, or when the tasks which he is to perform outstrip his mathematics ability, his scores drop precipitously.

The low scores on the index scores, clusters, tests and subtests that identify concerns in processing speed include the Processing Speed Index generated through the administration of the WAIS-III, the WJ-III Tests of Achievement, the Reading Fluency, Writing Fluency and Mathematics Fluency subtests and the Academic Fluency special purpose cluster. On the basis of these scores, and their measurement of being more than one and one-half standard deviations below his Verbal IQ of 113, the reading-based learning disabilities described below are also made.

On the basis of the test performed as part of this assessment, the fourth edition of the Diagnostic and Statistical Manual of the American Psychiatric Association (DSM-IV) diagnoses of

Reading Disorder,
Mathematics Disorder, and
Disorder of Written Expression

are given to X.

Recommendations

(1) His processing speed deficits qualify him to receive one and one-half the normal allotted time for all tests and in-class assignments.

(2) Because of his mathematics disorder, which has gone undiagnosed until the present assessment, it is recommended that decisions concerning his ability to perform at the professional school level be made through taking account of this disability. His grade point average should be considered both with and without the grades obtained in the mathematics classes which he undertook without accommodations that might have been made if he had been diagnosed earlier in his academic career.

(3) The diagnoses of Reading Disorder and Disorder of Written Expression suggest that he may face extreme difficulties in the professional school environment, which places a heavy emphasis on the abilities inherent in written language. Should he be accepted into professional school, and should he decide to go, he should apply for testing accommodations through the Dean of Students at the professional school as soon as possible after arrival.

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