

Interpretive Report of WAIS–IV and WMS–IV Testing

Examinee and Testing Information

Examinee Name	Client A	Date of Report	8/24/2009
Examinee ID		Years of Education	16
Date of Birth	4/24/1947	Home Language	< Not Specified >
Gender	Male	Handedness	< Not Specified >
Race/Ethnicity	White	Examiner Name	Examiner G

Test Administered	WAIS–IV (8/24/2009)	Age at Testing	62 years 4 months	Retest?	No
	WMS–IV (8/24/2009)		62 years 4 months		No

WAIS–IV Comments

WMS–IV Comments Referred by family physician due to increasing memory loss over the past few years

Purpose for Evaluation

Client was referred for an evaluation by Dr. G, his physician, secondary to Neurological difficulties.

Background

Client is a 62-year-old married male who lives with spouse/partner and has been for the past 32 years. He has 3 children.

Client achieved a degree from a 4-year university program.

Client has been diagnosed with hypertension and sleep disturbances. He is currently taking medication and/or receiving treatment for hypertension.

Client is currently retired. Previously, for 26 years Client was employed full-time as a(n) Manager. It is reported that his work performance was satisfactory.

Test Session Behavior: WMS–IV

Client arrived early for the test session accompanied by his spouse. His appearance was neat. He was oriented to person, place, time and situation.

Interpretation of WAIS–IV Results

General Intellectual Ability

Client was administered 10 subtests of the Wechsler Adult Intelligence Scale–Fourth Edition (WAIS–IV). His composite scores are derived from these subtest scores. The Full Scale IQ (FSIQ) composite

score is derived from 10 subtest scores and is considered the most representative estimate of global intellectual functioning. Client's general cognitive ability is within the average range of intellectual functioning, as measured by the FSIQ. His overall thinking and reasoning abilities exceed those of approximately 58% of individuals his age (FSIQ = 103; 95% confidence interval = 99-107). He performed slightly better on verbal than on nonverbal reasoning tasks, but there is no meaningful difference between Client's ability to reason with and without the use of words.

Verbal Comprehension

Client's verbal reasoning abilities as measured by the Verbal Comprehension Index (VCI) are in the high average range and above those of approximately 75% of his peers (VCI = 110; 95% confidence interval = 104-115). The VCI is designed to measure verbal reasoning and concept formation. Client's performance on the verbal subtests contributing to the VCI presents a diverse set of verbal abilities, as he performed much better on some verbal tasks than others. The degree of variability is unusual and may be noticeable to those who know him well. Examination of Client's performance on individual subtests provides additional information regarding his specific verbal abilities.

Client achieved his best performance among the verbal reasoning tasks on the Information subtest. His strong performance on the Information subtest was better than that of most of his peers.

The Information subtest required Client to respond orally to questions about common events, objects, places, and people. The subtest is primarily a measure of his fund of general knowledge. Performance on this subtest also may be influenced by cultural experience and quality of education, as well as his ability to retrieve information from long-term memory (Information scaled score = 13).

Perceptual Reasoning

Client's nonverbal reasoning abilities as measured by the Perceptual Reasoning Index (PRI) are in the average range and above those of approximately 61% of his peers (PRI = 104; 95% confidence interval = 98-110). The PRI is designed to measure fluid reasoning in the perceptual domain with tasks that assess nonverbal concept formation, visual perception and organization, visual-motor coordination, learning, and the ability to separate figure and ground in visual stimuli. Client's performance on the perceptual reasoning subtests contributing to the PRI is somewhat variable, although the magnitude of this difference in performance is not unusual among individuals his age. Examination of Client's performance on individual subtests provides additional information regarding his specific nonverbal abilities.

Client achieved his best performance among the nonverbal reasoning tasks on the Visual Puzzles subtest and his lowest score on the Block Design subtest. His performance across these areas differs significantly and suggest that these are the areas of most pronounced strength and weakness, respectively, in Client's profile of perceptual reasoning abilities.

The Block Design subtest required Client to use two-color cubes to construct replicas of two-dimensional, geometric patterns. This subtest assesses nonverbal fluid reasoning and the ability to mentally organize visual information. More specifically, this subtest assesses his ability to analyze part-whole relationships when information is presented spatially. Performance on this task also may be influenced by visual-spatial perception and visual perception-fine motor coordination, as well as planning ability (Block Design scaled score = 9). The Visual Puzzles subtest required Client to view a

completed puzzle and select three response options that, when combined, reconstruct the puzzle, and do so within a specified time limit. This subtest is designed to measure nonverbal reasoning and the ability to analyze and synthesize abstract visual stimuli. Performance on this task also may be influenced by visual perception, broad visual intelligence, fluid intelligence, simultaneous processing, spatial visualization and manipulation, and the ability to anticipate relationships among parts (Visual Puzzles scaled score = 12).

Working Memory

Client's ability to sustain attention, concentrate, and exert mental control is in the average range. He performed better than approximately 63% of his peers in this area (Working Memory Index (WMI) = 105; 95% confidence interval 98-111).

Processing Speed

Client's ability in processing simple or routine visual material without making errors is in the low average range when compared to his peers. He performed better than approximately 18% of his peers on the processing speed tasks (Processing Speed Index [PSI] = 86; 95% confidence interval 79-96). Processing visual material quickly is an ability that Client performs poorly as compared to his verbal and nonverbal reasoning ability. Processing speed is an indication of the rapidity with which Client can mentally process simple or routine information without making errors. Because learning often involves a combination of routine information processing (such as reading) and complex information processing (such as reasoning), a weakness in the speed of processing routine information may make the task of comprehending novel information more time-consuming and difficult for Client. Thus, this weakness in simple visual scanning and tracking may leave him less time and mental energy for the complex task of understanding new material.

Summary

Client was referred for an evaluation by Dr. G, his physician, secondary to Neurological difficulties. Client is a 62-year-old male who completed the WAIS-IV. His general cognitive ability, as estimated by the WAIS-IV, is in the average range (FSIQ = 103). Client's general verbal comprehension abilities were in the high average range (VCI = 110), and his general perceptual reasoning abilities were in the average range (PRI = 104). Client's ability to sustain attention, concentrate, and exert mental control is in the average range (WMI = 105). Client's ability in processing simple or routine visual material without making errors is in the low average range when compared to his peers (PSI = 86).

Interpretation of WMS-IV Results

Client was administered 10 subtests of the Adult battery of the Wechsler Memory Scale-Fourth Edition (WMS-IV), from which his index scores were derived. He was also administered the Brief Cognitive Status Exam (BCSE), an optional procedure measuring global cognitive functioning. Client's scores on the WMS-IV indexes are discussed in the following sections of this report, as are discrepancies in performance across different modalities and categories of memory processes. In addition, specific strengths and deficits within modalities are discussed.

When interpreting performance on the WMS-IV, it is important to take into consideration factors that may have contributed to Client's test performance, such as difficulties with vision, hearing, motor functioning, English language proficiency, and speech/language functioning. In addition, personal factors, such as physical illness, fatigue, headache, or factors specific to the testing session such as distractions or a lack of motivation, can affect performance on any given day. According to the information provided, some of the following issues may have affected Client's performance. His difficulties with expressive language may have had a minimal effect on his performance on measures such as Logical Memory and Verbal Paired Associates that required him to express himself orally. Therefore, caution is recommended when interpreting these subtest scores and the index scores derived from them. His reported experience of family stress or conflicts at the time of the assessment appeared to have a minimal effect on his overall performance. Client's history of above average academic performance should be kept in mind, as this may have had a positive influence on his performance on this assessment.

Brief Cognitive Status Exam

The Brief Cognitive Status Exam (BCSE) evaluates basic cognitive functions through tasks that assess orientation to time, incidental recall, mental control, planning/visual perceptual processing, inhibitory control, and verbal productivity. Client's global cognitive functioning, as measured by the BCSE, was in the Low Average range, compared to others, ages 45 to 69, with a similar educational background. This classification level represents 10–24% of cases within his age and education group. Functioning in this range is not typically associated with global impairments in cognitive functioning.

Auditory Memory

The Auditory Memory Index (AMI) is a measure of Client's ability to listen to oral information, repeat it immediately, and then recall the information after a 20 to 30 minute delay. Compared to other individuals his age, Client's auditory memory capacity is in the Low Average range (AMI = 87, 95% Confidence Interval = 81-94) and exceeds that of approximately 19 percent of individuals in his age group.

However, it is important to note that the expressive language difficulties that Client appeared to experience during the assessment are suspected of having had a minimal effect on his ability to fully express his auditory memory capacity.

To determine if Client's auditory memory capacity is consistent with his general intellectual ability, a comparison between his GAI and AMI index scores is recommended. Client's performance on the GAI and AMI indicate that his ability to recall information presented orally is significantly lower than expected when compared to his general intellectual ability (GAI = 107; AMI = 87). Such difference is rare and may be noticeable to those close to him. Client's ability to recall information presented orally is in the Low Average range when compared others with similar general intellectual ability (9th percentile). This result indicates that his auditory memory is lower than expected, given his level of general intellectual functioning (GAI vs. AMI Contrast Scaled Score = 6).

Client's ability to recall information presented orally is in the Low Average range when compared to others with similar verbal comprehension (9th percentile). This result indicates that his auditory memory is lower than expected, given his level of verbal comprehension (VCI vs. AMI Contrast Scaled Score = 6).

Client's ability to recall orally presented information is in the Low Average range when compared to others with similar auditory working memory capacity (16th percentile). This result indicates that his auditory memory is lower than expected, given his level of working memory (WMI vs. AMI Contrast Scaled Score = 7).

Visual Memory

On the Visual Memory Index (VMI), a measure of memory for visual details and spatial location, Client performed in the Low Average range (VMI = 86, 95% Confidence Interval = 81-92). Client's visual memory capacity exceeds that of approximately 18 percent of individuals in his age group.

To determine if Client's visual memory function is consistent with his general intellectual ability, a comparison between his performance on the VMI and GAI is recommended. Client's ability to recall information presented visually is significantly lower than expected when compared to his general intellectual ability (GAI = 107; VMI = 86). Furthermore, such difference is rare and may be noticeable to those close to him. Client's ability to recall orally presented information is in the Borderline range when compared to others with similar general intellectual functioning (5th percentile). This result indicates that his visual memory is much lower than expected, given his level of general intellectual functioning (GAI vs. VMI Contrast Scaled Score = 5).

Client's ability to recall information presented orally is in the Low Average range when compared to others with similar perceptual reasoning ability (9th percentile). This result indicates that his visual memory is lower than expected, given his level of perceptual reasoning ability (PRI vs. VMI Contrast Scaled Score = 6).

Modality-Specific Memory Strengths and Weaknesses

Some individuals are better at recalling visual information than recalling auditory information, while for others the reverse is true. Compared to individuals with similar auditory memory capacity, Client's visual memory performance is in the Average range (25th percentile), indicating no significant difference between his levels of visual and auditory memory functioning. The interpretation of Client's modality-specific memory strengths and weaknesses should take into account the previously mentioned expressive language difficulties which may have affected his performance.

Visual Working Memory

On the Visual Working Memory Index (VWMI), a measure of his ability to temporarily hold and manipulate spatial locations and visual details, Client performed in the Average range (VWMI = 97, 95% Confidence Interval = 90-104). Client's visual working memory ability exceeds that of approximately 42 percent of individuals in his age group.

To determine if Client's working memory capacity for visual information is consistent with his general intellectual ability, a comparison between his performance on the VWMI and GAI is recommended. Client's performance on the GAI and VWMI indicates that his working memory capacity for visual information is consistent with his level of general intellectual ability (GAI = 107; VWMI = 97). Client's working memory capacity for visual information is in the Average range when compared to others with similar general intellectual functioning (25th percentile). This result suggests there is no significant difference between his visual working memory and general intellectual functioning (GAI vs. VWMI Contrast Scaled Score = 8).

Client's working memory capacity for visual information is in the Average range when compared to others of similar perceptual reasoning ability (37th percentile). This result indicates there is no significant difference between his working memory capacity for visual information and perceptual reasoning ability (PRI vs. VMI Contrast Scaled Score = 9).

To determine if Client's auditor working memory function is consistent with his visual working memory ability, a comparison between his WMI and VWMI index scores is recommended. Client's working memory capacity for visual information is in the Average range when compared to others with similar auditory working memory capacity (25th percentile). This result suggests that there is no significant difference between his working memory capacity for visually or orally presented information (WMI vs. VWMI Contrast Scaled Score = 8).

Specificity of Episodic Visual Memory Abilities Compared to Visual Working Memory Abilities

Comparing episodic visual memory to visual working memory performance can help determine the relative influence of visual memory on visual working memory (e.g., to determine if a low VMI score is due to deficits in visual working memory or to episodic visual memory deficits). Compared to individuals with similar visual working memory capacity, Client's visual memory performance is in the Low Average range (16th percentile), indicating that his visual memory is lower than expected, given his level of visual working memory functioning.

Immediate and Delayed Memory

The Immediate Memory Index (IMI) is a measure of Client's ability to recall verbal and visual information immediately after the stimuli is presented. Compared to other individuals his age, Client's immediate memory capacity is in the Low Average range (IMI = 86, 95% Confidence Interval = 80-93) and exceeds that of approximately 18 percent of individuals in his age group. On the Delayed Memory Index (DMI), a measure of the ability to recall verbal and visual information after a 20 to 30 minute delay, Client performed in the Low Average range (DMI = 82, 95% Confidence Interval = 76-90). Client's delayed memory capacity exceeds that of approximately 12 percent of individuals in his age group. However, it is important to note that the expressive language difficulties that Client appeared to experience during the assessment are suspected of having had a minimal effect on his immediate and delayed memory functioning.

To determine if Client's immediate memory recall ability is consistent with his general intellectual functioning, a comparison between his performance on the GAI and IMI is recommended. Client's ability to recall information immediately after its presentation is significantly lower than expected, given his general intellectual ability (GAI = 107; IMI = 86). Furthermore, such difference is rare and may be noticeable to those close to him. Client's ability to recall information immediately after its presentation is in the Borderline range when compared to others of similar general intellectual functioning (5th percentile). This result suggests that his immediate memory recall is much lower than expected given his level of general intellectual functioning (GAI vs. IMI Contrast Scaled Score = 5).

In order to determine if Client's memory recall after a 20–30 minute delay is consistent with his general intellectual ability, a comparison between his GAI and DMI index scores is recommended. Client's ability to recall information after a delay is significantly lower than expected, given his general intellectual ability (GAI = 107; DMI = 82). In addition, such difference is rare and may be

noticeable to those close to him. Client's ability to recall information after a delay is in the Borderline range when compared to others of similar general intellectual ability (5th percentile). This result suggests that his delayed memory recall is much lower than expected, given his level of general intellectual functioning (GAI vs. DMI Contrast Scaled Score = 5).

Retention of Information

Some individuals lose information between immediate and delayed recall, while others actually improve their memory performance over time. The overall amount of forgetting and consolidation that occurred between the immediate and delayed tasks is indicated by the level of Client's delayed memory performance given his immediate memory performance. Compared to individuals with a similar level of immediate memory capacity, Client's delayed memory performance is in the Low Average range (16th percentile), indicating that his delayed memory is lower than expected, given his level of initial encoding.

Specific Auditory Memory Abilities

Auditory Forgetting and Retrieval Scores

The degree to which Client forgot the story details he learned during the immediate condition of Logical Memory I can be determined by comparing his delayed recall performance to that of others with a similar level of immediate recall (LM II Immediate Recall vs. Delayed Recall contrast scaled score = 7). This comparison indicates that Client displayed a higher than expected rate of forgetting, given his immediate memory performance.

The degree to which Client forgot the word associations he learned during immediate recall of Verbal Paired Associates I can be determined by comparing his delayed recall performance to that of others with a similar level of immediate recall (VPA II Immediate Recall vs. Delayed Recall contrast scaled score = 6). This comparison indicates that Client displayed a higher than expected rate of forgetting, given his immediate memory performance.

Specific Visual Memory Abilities

Visual Process Scores

Client's immediate memory for visual details is in the average range, while his delayed memory for visual details is below average (DE I Content scaled score = 10, DE II Content scaled score = 6). Although he is not likely to have difficulty recalling specific visual information soon after it is presented when compared to individuals his age, his ability to recall the information decreases over time more than is typical. When required to recall designs and their locations in a grid, Client's immediate memory for the locations of cards placed in the grid, regardless of his ability to recall the visual details of the cards, is below average, while his delayed memory for the locations is in the average range (DE I Spatial scaled score = 6, DE II Spatial scaled score = 11). Although he may have difficulty recalling spatial locations soon after they are presented when compared to individuals his age, his ability to recall the information may benefit from time for consolidation.

Visual Forgetting and Retrieval Scores

Client's immediate recall of visual details is average when compared to others with similar levels of immediate spatial memory ability. His delayed recall of visual details is below average when

compared to others with similar levels of delayed spatial memory ability. The degree to which Client forgot the visual details and spatial locations he learned during the immediate condition of the Designs subtest can be determined by comparing his delayed recall performance to that of individuals with a similar level of immediate memory (DE Immediate Recall vs. Delayed Recall contrast scaled score = 10). Based on this comparison, Client is able to recall visual details and spatial locations after a delay as well as expected, given his level of immediate recall.

The degree to which Client forgot the details and relative spatial relationship among elements of the designs presented during the immediate recall of the Visual Reproduction subtest can be determined by comparing his ability to recall and draw the designs after a delay to that of individuals with a similar level of immediate ability (VR Immediate Recall vs. Delayed Recall contrast scaled score = 9). Based on this comparison, Client is able to recall and draw this type of visual information after a delay as well as expected, given his level of immediate recall.

Summary of WMS-IV Memory Abilities

Client is a 62-year-old male who completed the WMS-IV. Client was referred for an evaluation by Dr. G, his physician, secondary to Neurological difficulties. When reviewing Client's results, it is important to keep in mind the previously noted factors that may have affected his test performance.

Client was administered 10 subtests of the Adult battery of the WMS-IV. Client's global cognitive functioning as measured by the BCSE was in the Low Average range, compared to others ages 45 to 69 and of a similar educational background. Client's ability to listen to oral information and repeat it immediately, and then recall the information after a 20 to 30 minute delay is in the Low Average range. His memory for visual details and spatial location is in the Low Average range. His ability to temporarily hold and manipulate spatial locations and visual details is in the Average range. The influence of Client's visual memory on his visual working memory should be noted. Compared to individuals with similar visual working memory capacity, Client's visual memory performance is in the Low Average range, indicating that his visual memory is lower than expected, given his level of visual working memory functioning. Client's ability to recall verbal and visual information immediately after the stimuli is presented is in the Low Average range. His ability to recall verbal and visual information after a 20 to 30 minute delay is in the Low Average range. Client displayed a notable amount of forgetting between the immediate and delayed tasks of the WMS-IV. Compared to individuals with a similar level of immediate memory capacity, Client's delayed memory performance is in the Low Average range, indicating that his delayed memory is lower than expected given his level of initial encoding.

Summary of Intellectual and Memory Abilities

A comparison of Client's auditory memory ability (AMI) to his results on WAIS-IV revealed that he performed significantly outside the expected range when compared to his general intellectual functioning. The adjustment of Client's AMI result by his general intellectual functioning, generated a contrast scale score in the Low Average range, indicating that his auditory memory is lower than expected. The adjustment of Client's AMI result by his verbal comprehension ability generated a contrast scaled score in the Low Average range, indicating that his auditory memory is lower than expected. The adjustment of Client's AMI result by his working memory ability (WMI) generated a contrast scaled score in the Low Average range, indicating that his auditory memory is lower than expected.

A comparison of Client's visual memory (VMI) to his results on WAIS-IV revealed that he performed significantly outside the expected range when compared to his general intellectual functioning. The adjustment of Client's VMI result by his general intellectual ability (GAI) generated a contrast scaled score in the Borderline range, indicating that his visual memory is much lower than expected. The adjustment of Client's VMI result by his perceptual reasoning (PRI) generated a contrast scaled score is in the Low Average range, indicating that his visual memory is lower than expected.

A comparison of Client's visual working memory (VWMI) to his results on WAIS-IV revealed that he performed within the expected range when compared to his general intellectual functioning.

A comparison of Client's immediate memory recall (IMI) to his results on the WAIS-IV revealed that he performed significantly outside the expected range when compared to his general intellectual functioning. A comparison of Client's delayed memory recall results (DMI) to his results on WAIS-IV revealed that he performed significantly outside the expected range when compared to his general intellectual ability. The adjustment of Client's IMI result by his general intellectual ability (GAI) generated a contrast scale score in the Borderline range, indicating that his immediate memory capacity is much lower than expected. The adjustment of Client's DMI result by his general intellectual ability (GAI) generated a contrast scale score in the Borderline range, indicating that his delayed memory capacity is much lower than expected.

This report is valid only if signed by a qualified professional:

Score Report

WAIS-IV Results

Composite Score Summary

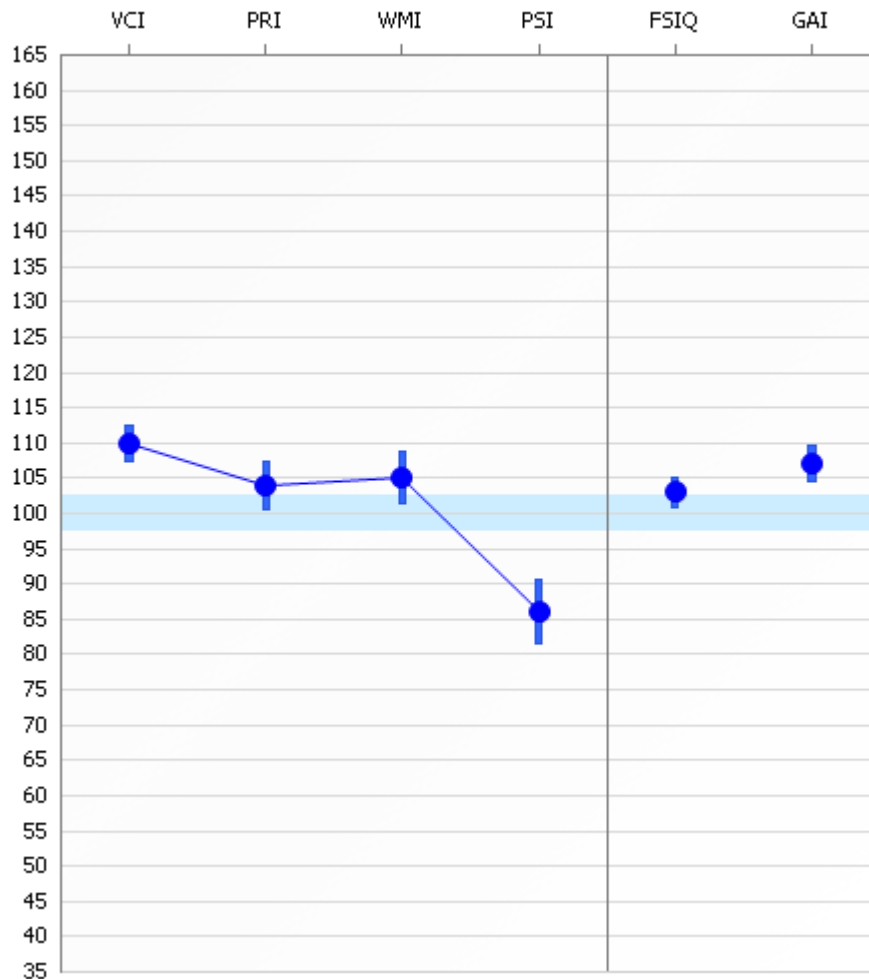
Scale	Sum of Scaled Scores	Composite Score	Percentile Rank	95% Confidence Interval	Qualitative Description
Verbal Comprehension	36	VCI 110	75	104-115	High Average
Perceptual Reasoning	32	PRI 104	61	98-110	Average
Working Memory	22	WMI 105	63	98-111	Average
Processing Speed	15	PSI 86	18	79-96	Low Average
Full Scale	105	FSIQ 103	58	99-107	Average
General Ability	68	GAI 107	68	102-112	Average

Confidence Intervals are based on the Overall Average SEMs. Values reported in the SEM column are based on the examinee's age.

The GAI is an optional composite summary score that is less sensitive to the influence of working memory and processing speed. Because working memory and processing speed are vital to a comprehensive evaluation of cognitive ability, it should be noted that the GAI does not have the breadth of construct coverage as the FSIQ.

Composite Score Profile

Composite Scores and Standard Error of Measurement



Composite	Score	SEM
VCI	110	2.6
PRI	104	3.35
WMI	105	3.67
PSI	86	4.5
FSIQ	103	2.12
GAI	107	2.6

The vertical bars represent the standard error of measurement (*SEM*).

Index Level Discrepancy Comparisons

Comparison	Score 1	Score 2	Difference	Critical Value .05	Significant Difference Y / N	Base Rate Overall Sample
VCI - PRI	110	104	6	8.31	N	32.5
VCI - WMI	110	105	5	8.82	N	36.8
VCI - PSI	110	86	24	10.19	Y	7
PRI - WMI	104	105	-1	9.74	N	48
PRI - PSI	104	86	18	11	Y	12.1
WMI - PSI	105	86	19	11.38	Y	10.8
FSIQ - GAI	103	107	-4	3.51	Y	23.8

Base rate by overall sample.

Statistical significance (critical value) at the .05 level.

Verbal Comprehension Subtests Summary

Subtest	Raw Score	Scaled Score	Percentile Rank	Reference Group Scaled Score	SEM
Similarities	27	11	63	11	1.08
Vocabulary	45	12	75	13	0.73
Information	21	13	84	15	0.67

Perceptual Reasoning Subtests Summary

Subtest	Raw Score	Scaled Score	Percentile Rank	Reference Group Scaled Score	SEM
Block Design	32	9	37	7	1.04
Matrix Reasoning	16	11	63	8	0.95
Visual Puzzles	15	12	75	10	0.99

Working Memory Subtests Summary

Subtest	Raw Score	Scaled Score	Percentile Rank	Reference Group Scaled Score	SEM
Digit Span	27	10	50	9	0.85
Arithmetic	17	12	75	12	1.04

Processing Speed Subtests Summary

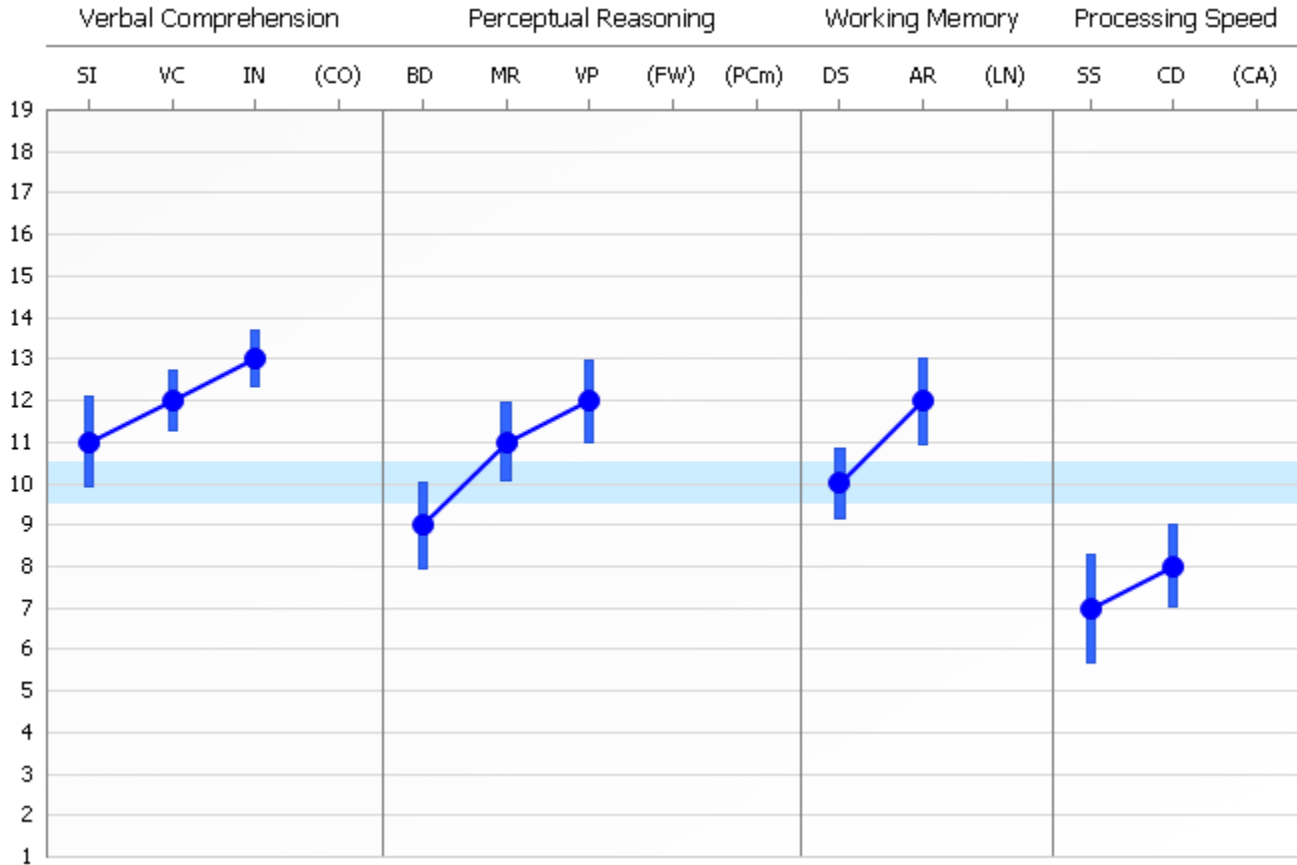
Subtest	Raw Score	Scaled Score	Percentile Rank	Reference Group Scaled Score	SEM
Symbol Search	21	7	16	6	1.31
Coding	52	8	25	6	0.99

Subtest Level Discrepancy Comparisons

Subtest Comparison	Score 1	Score 2	Difference	Critical Value .05	Significant Difference Y / N	Base Rate
Digit Span - Arithmetic	10	12	-2	2.57	N	27.8
Symbol Search - Coding	7	8	-1	3.41	N	40.1

Statistical significance (critical value) at the .05 level.

Subtest Scaled Score Profile



The vertical bars represent the standard error of measurement (SEM)

Determining Strengths and Weaknesses

Differences Between Subtest and Overall Mean of Subtest Scores

Subtest	Subtest Scaled Score	Mean Scaled Score	Difference	Critical Value .05	Strength or Weakness	Base Rate
Block Design	9	10.50	-1.5	2.85		> 25%
Similarities	11	10.50	0.5	2.82		> 25%
Digit Span	10	10.50	-0.5	2.22		> 25%
Matrix Reasoning	11	10.50	0.5	2.54		> 25%
Vocabulary	12	10.50	1.5	2.03		> 25%
Arithmetic	12	10.50	1.5	2.73		> 25%
Symbol Search	7	10.50	-3.5	3.42	W	10-15%
Visual Puzzles	12	10.50	1.5	2.71		> 25%
Information	13	10.50	2.5	2.19	S	15-25%
Coding	8	10.50	-2.5	2.97		25%

Overall: Mean = 10.5, Scatter = 6, Base rate = 68.4.

Base Rate for Intersubtest Scatter is reported for 10 Full Scale Subtests.

Statistical significance (critical value) at the .05 level.

Working Memory Process Score Summary

Process Score	Raw Score	Scaled Score	Percentile Rank	Base Rate	SEM
Digit Span Forward	9	9	37	--	1.44
Digit Span Backward	9	11	63	--	1.27
Digit Span Sequencing	9	11	63	--	1.37

Process Level Discrepancy Comparisons

Process Comparison	Score 1	Score 2	Difference	Critical Value .05	Significant Difference Y / N	Base Rate
Digit Span Forward - Digit Span Backward	9	11	-2	3.65	N	31.5
Digit Span Forward - Digit Span Sequencing	9	11	-2	3.6	N	31.7
Digit Span Backward - Digit Span Sequencing	11	11	0	3.56	N	

Statistical significance (critical value) at the .05 level.

WMS-IV Results

Brief Cognitive Status Exam Classification

Age	Years of Education	Raw Score	Classification Level	Base Rate
62 years 4 months	16	52	Low Average	22.1

Index Score Summary

Index	Sum of Scaled Scores	Index Score	Percentile Rank	95% Confidence Interval	Qualitative Description
Auditory Memory	31	AMI 87	19	81-94	Low Average
Visual Memory	31	VMI 86	18	81-92	Low Average
Visual Working Memory	19	VWMI 97	42	90-104	Average
Immediate Memory	32	IMI 86	18	80-93	Low Average
Delayed Memory	30	DMI 82	12	76-90	Low Average

Index Score Profile

Index Scores and Standard Error of Measurement



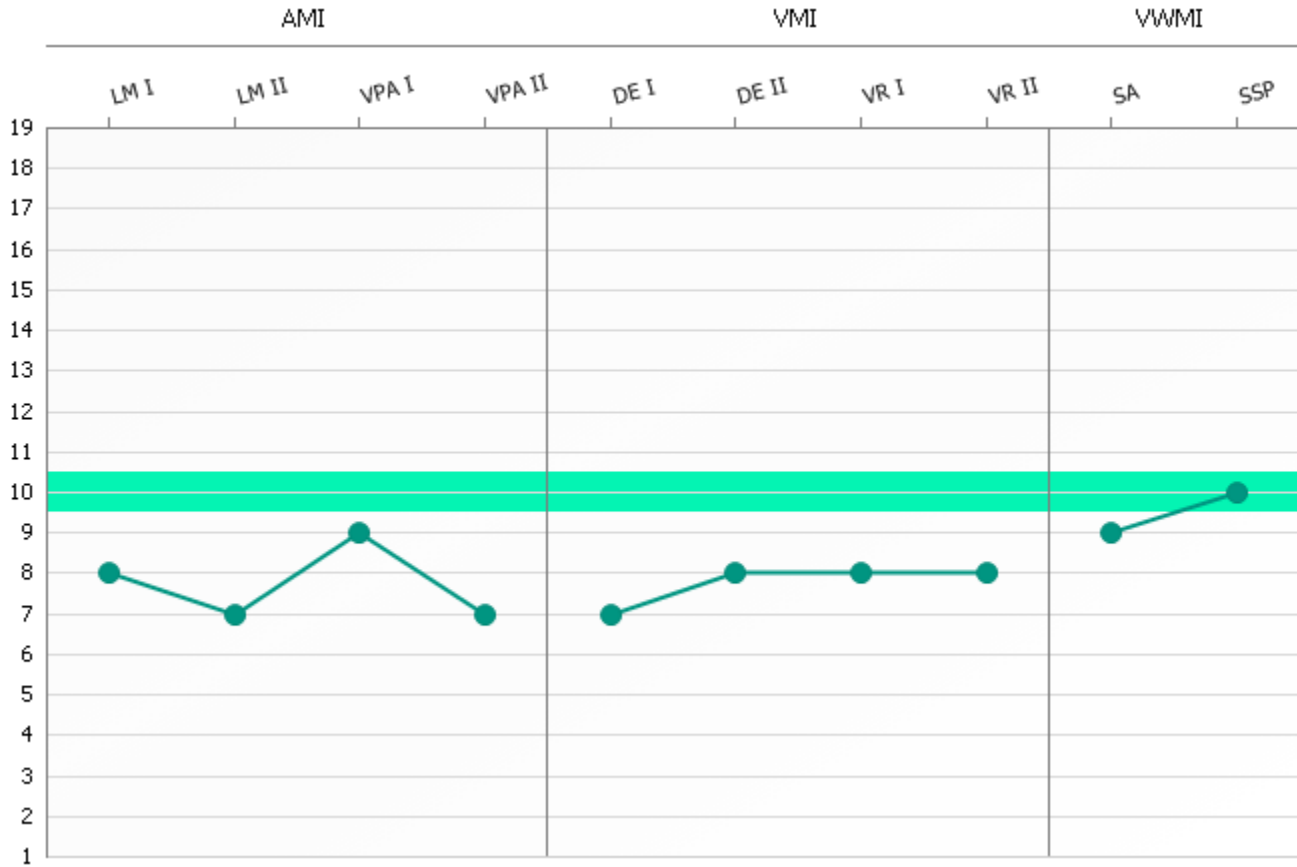
Index	Score	SEM
AMI	87	3.35
VMI	86	3
VWMI	97	3.97
IMI	86	3.67
DMI	82	3.67

The vertical bars represent the standard error of measurement (*SEM*).

Primary Subtest Scaled Score Summary

Subtest	Domain	Raw Score	Scaled Score	Percentile Rank
Logical Memory I	AM	21	8	25
Logical Memory II	AM	14	7	16
Verbal Paired Associates I	AM	27	9	37
Verbal Paired Associates II	AM	6	7	16
Designs I	VM	50	7	16
Designs II	VM	45	8	25
Visual Reproduction I	VM	29	8	25
Visual Reproduction II	VM	16	8	25
Spatial Addition	VWM	10	9	37
Symbol Span	VWM	22	10	50

Primary Subtest Scaled Score Profile



Process Score Conversions

Visual Memory Process Score Summary

Process Score	Raw Score	Scaled Score	Percentile Rank	Cumulative Percentage (Base Rate)
DE I Content	35	10	50	-
DE I Spatial	11	6	9	-
DE II Content	24	6	9	-
DE II Spatial	13	11	63	-

Subtest-Level Differences Within Indexes

Auditory Memory Index

Subtest	Scaled Score	AMI Mean		Critical Value	Base Rate
		Score	Difference from Mean		
Logical Memory I	8	7.75	0.25	2.64	> 25%
Logical Memory II	7	7.75	-0.75	2.48	> 25%
Verbal Paired Associates I	9	7.75	1.25	1.90	> 25%
Verbal Paired Associates II	7	7.75	-0.75	2.48	> 25%

Statistical significance (critical value) at the .05 level.

Visual Memory Index

Subtest	Scaled Score	VMI Mean		Critical Value	Base Rate
		Score	Difference from Mean		
Designs I	7	7.75	-0.75	2.38	> 25%
Designs II	8	7.75	0.25	2.38	> 25%
Visual Reproduction I	8	7.75	0.25	1.86	> 25%
Visual Reproduction II	8	7.75	0.25	1.48	> 25%

Statistical significance (critical value) at the .05 level.

Immediate Memory Index

Subtest	Scaled Score	IMI Mean		Critical Value	Base Rate
		Score	Difference from Mean		
Logical Memory I	8	8.00	0.00	2.59	> 25%
Verbal Paired Associates I	9	8.00	1.00	1.82	> 25%
Designs I	7	8.00	-1.00	2.42	> 25%
Visual Reproduction I	8	8.00	0.00	1.91	> 25%

Statistical significance (critical value) at the .05 level.

Delayed Memory Index

Subtest	Scaled Score	DMI Mean		Critical Value	Base Rate
		Score	Difference from Mean		
Logical Memory II	7	7.50	-0.50	2.44	> 25%
Verbal Paired Associates II	7	7.50	-0.50	2.44	> 25%
Designs II	8	7.50	0.50	2.44	> 25%
Visual Reproduction II	8	7.50	0.50	1.57	> 25%

Statistical significance (critical value) at the .05 level.

Subtest Discrepancy Comparison

Comparison	Score 1	Score 2	Difference	Critical Value	Base Rate
Spatial Addition – Symbol Span	9	10	-1	2.74	85.9

Statistical significance (critical value) at the .05 level.

Subtest-Level Contrast Scaled Scores

Logical Memory

Score	Score 1	Score 2	Contrast Scaled Score
LM Immediate Recall vs. Delayed Recall	8	7	7

Verbal Paired Associates

Score	Score 1	Score 2	Contrast Scaled Score
VPA Immediate Recall vs. Delayed Recall	9	7	6

Designs

Score	Score 1	Score 2	Contrast Scaled Score
DE I Spatial vs. Content	6	10	12
DE II Spatial vs. Content	11	6	5
DE Immediate Recall vs. Delayed Recall	7	8	10

Visual Reproduction

Score	Score 1	Score 2	Contrast Scaled Score
VR Immediate Recall vs. Delayed Recall	8	8	9

Index-Level Contrast Scaled Scores

WMS-IV Indexes

Score	Score 1	Score 2	Contrast Scaled Score
Auditory Memory Index vs. Visual Memory Index	87	86	8
Visual Working Memory Index vs. Visual Memory Index	97	86	7
Immediate Memory Index vs. Delayed Memory Index	86	82	7

Ability-Memory Analysis

Ability Score Type: GAI
 Ability Score: 107

Predicted Difference Method

Index	Predicted WMS-IV Index Score	Actual WMS-IV Index Score	Difference	Critical Value	Significant Difference Y / N	Base Rate
Auditory Memory	104	87	17	8.95	Y	10%
Visual Memory	104	86	18	8.82	Y	5-10%
Visual Working Memory	105	97	8	11.24	N	
Immediate Memory	105	86	19	10.35	Y	5%
Delayed Memory	104	82	22	10.08	Y	4%

Statistical significance (critical value) at the .01 level.

Contrast Scaled Scores

Score	Score 1	Score 2	Contrast Scaled Score
General Ability Index vs. Auditory Memory Index	107	87	6
General Ability Index vs. Visual Memory Index	107	86	5
General Ability Index vs. Visual Working Memory Index	107	97	8
General Ability Index vs. Immediate Memory Index	107	86	5
General Ability Index vs. Delayed Memory Index	107	82	5
Verbal Comprehension Index vs. Auditory Memory Index	110	87	6
Perceptual Reasoning Index vs. Visual Memory Index	104	86	6
Perceptual Reasoning Index vs. Visual Working Memory Index	104	97	9
Working Memory Index vs. Auditory Memory Index	105	87	7
Working Memory Index vs. Visual Working Memory Index	105	97	8