

Wide Range Assessment of Memory and Learning, Third Edition (WRAML™3)

WRAML™3 Interpretive Report - Standard Form

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Examinee Information

Name: P M

ID:

Gender: Male

Date of Birth: 11/20/1933

Age at Testing: 86 years 3 months

Race/Ethnicity: White Handedness: Right

Test Information

Date of Testing: 03/13/2020

Examiner Name: Examiner, Sample

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Interpretive Overview

Overview

The Wide Range Assessment of Memory and Learning (3rd ed., WRAML3) is an individually administered, standardized assessment of memory, learning, and cognitive functions that support memory and learning processes. Specifically, the WRAML3 provides information about P's verbal and visual immediate and delayed recall, recognition, attention and concentration, and working memory.

Disclaimer

The WRAML3 Interpretive Report assumes that the examiner has foundational skills including a thorough understanding of the WRAML3 psychometric characteristics, its structure, and its administration procedures. Basic properties of the assessment are explained in the WRAML3 Administration Manual (2021) including a description of subtests, subtest directions, administration requirements, and a brief interpretation of the test results. A more complete presentation of the research supporting the assessment, including its national standardization, interrelationships between various indexes, subtests, and process variables can be found in the WRAML3 Technical Manual (2021).

The results and interpretive analyses contained within the WRAML3 Interpretive Report are designed to be integrated with other sources about the examinee, including history, behavioral observations, emotional concerns, as well as psychometric data from other test instruments. This report cannot exhaust the interpretive and diagnostic possibilities of such a complex construct as memory. The WRAML3 Interpretive Report was designed to provide clinicians with a practical, wide range sample of learning and memory interpretations to generate useful clinical hypotheses.

This report is confidential and intended exclusively for the use of qualified clinicians and trainees under supervision. Reviewing the test results with the examinee, parents/guardians, or other stakeholders (e.g., school personnel) is appropriate and encouraged as proper assessment practice when following applicable federal and state guidelines. Do not release this report to any individuals who are not qualified to interpret its results.

Confidence Intervals and Statistical Significance Selections

Confidence intervals at the 90th percentile are reported for the index scores. Critical values at the p < .10 level are reported for process scores, when applicable.

Performance Validity Indicator

P's results on the Performance Validity Indicator were found to be indeterminate. That is, P's scores on the Attention/Concentration Index or the sum of the first five items on the recognition subtests indicate that caution may be warranted when evaluating the level of effort P put forth during testing. Low scores may be attributable to a variety of factors not related to effort and this should be considered when interpreting this indicator.

It is important to note the prevalence of low subtest and index scores in the normative sample when considering performance validity. For the WRAML3 28% of individuals in the normative sample achieved at least one subtest score of <= 4 and 13% of individuals achieved at least one index score of <= 70. The prevalence of subtest and index scores in the very low range suggests that interpretive caution should be taken if just one score indicates low effort or invalid performance. P achieved 8 subtest scores that are <= 4, and 8 index scores that are <= 70.

Validity Indicator
Indeterminate

Index Score Summary

Index	Sum of Scaled Scores	Index Score	Confidence Interval (90%)	Percentile Rank
Visual Immediate Memory	14	82	77 - 92	12
Verbal Immediate Memory	7	62	59 - 71	0.6
Attention/Concentration	21	103	94 - 111	58
General Immediate Memory	42	77	73 - 85	6
Screener Memory	21	69	65 - 77	2
Visual Delayed	9	67	64 - 81	1
Verbal Delayed	7	62	59 - 73	0.6
General Delayed	16	59	56 - 69	0.3
Visual Recognition	4	55	54 - 70	0.1
Verbal Recognition	8	63	61 - 79	0.7
General Recognition	12	55	53 - 68	0.1
Working Memory	13	80	75 - 90	9

Subtest Score Summary

	Immediate Recall (Core)											
Scaled Score												
Subtest	Raw Score	Visual Immediate Memory	Verbal Immediate Memory	Attention/ Concentration	Screener Memory							
Picture Memory	8	7			7							
Design Learning	17	7			7							
Story Memory	3		3		3							
Verbal Learning	6		4		4							
Finger Windows	13			11								
Number Letter	11			10								

Delayed Recall (Supplementary)									
		Scaled	l Score						
Subtest	Raw Score	Visual Delayed	Verbal Delayed						
Picture Memory Delayed	5	5							
Design Learning Delayed	0	4							
Story Memory Delayed	0		3						
Verbal Learning Delayed	0		4						

Recognition (Supplementary)										
		Scaled	Score							
Subtest	Raw Score	Visual Recognition	Verbal Recognition							
Picture Memory Recognition	4	2								
Design Learning Recognition	5	2								
Story Memory Recognition	11		2							
Verbal Learning Recognition	11		6							

Working Memory (Supplementary)								
Subtest Raw Score Scaled Sco								
Visual Working Memory	6	6						
Verbal Working Memory	7	7						

Additional Subtest (Supplementary)								
Subtest Raw Score Scaled Score								
Sentence Memory 18 8								

Score Summary Profiles

	WRAML3 SUBTESTS																
		ICTUF IEMOF			TORY			ESIGI ARNII			ERBA ARNII			ΓN./ NC.	WOR MEM		ADD'L
Scaled Score	Picture Memory	Picture Memory Delayed	Picture Memory Recognition	Story Memory	Story Memory Delayed	Story Memory Recognition	Design Learning	Design Learning Delayed	Design Learning Recognition	Verbal Learning	Verbal Learning Delayed	Verbal Learning Recognition	Finger Windows	Number Letter	Visual Working Memory	Verbal Working Memory	Sentence Memory
19 –																	
18 <i>-</i>																	
16 -																	
15 -																	
14 –																	
13 -																	
12 -																	
11 –													1				
10 -														1			
9 -														\			
8 –														'			<u>^</u>
7 -	1						Å					1			\setminus	<u>/</u>	
6 -	\						/\					<i>*</i>			V		
5 -		1						1									
3 -				_	_	-		1		/							
2 -						$\sqrt{}$			\bigvee								
1 -																	

	WRAML3 INDEXES										
Index Score	General Immediate Memory	General Delayed	General Recognition	Visual Immediate Memory	Visual Delayed	Visual Recognition	Verbal Immediate Memory	Verbal Delayed	Verbal Recognition	Attention/Concentration	Working Memory
145 -											
140 -											
135 -											
130 -											
125 -											
120 -											
115 -											
110 -											
105 -											
100 -										Λ	
95 -										$I \setminus$	
90 -										l	
85 -											\
80 -	-			Ň							1
75 -	1			$ \rangle$							
70 -											
65 -		\setminus			1				J		
60 -		1									
55 -			V			V					

Index Discrepancy Analyses

Index Comparisons	Standard Score 1	Standard Score 2	Difference	Critical Value (.10)	Significant	Base Rate
Visual Immediate Memory vs. Verbal Immediate Memory	82	62	20	10.13	Y	<=10%
Verbal Immediate Memory vs. Attention/Concentration	62	103	-41	10.99	Y	<=2%
Visual Immediate Memory vs. Attention/Concentration	82	103	-21	12.29	Y	<=15%
Visual Immediate Memory vs. Visual Delayed**	82	67	15	12.05	Y	<=5%
Verbal Immediate Memory vs. Verbal Delayed**	62	62	0	9.20	N	-
Visual Delayed vs. Verbal Delayed	67	62	5	11.27	N	-
Visual Recognition vs. Verbal Recognition	55	63	-8	11.80	N	-
Attention/Concentration vs. Working Memory	103	80	23	10.99	Y	<=5%
General Immediate Memory vs. General Delayed	77	59	18	8.52	Y	<=2%
General Delayed vs. General Recognition	59	55	4	9.21	N	-
Screener Memory vs. Working Memory	69	80	-11	8.51	Y	<=25%
Screener Memory vs. Attention/Concentration	69	103	-34	10.99	Υ	<=2%
Screener Memory vs. General Delayed	69	59	10	8.87	Υ	<=10%

^{**}Information about these analyses can be found in the WRAML3 Technical Report, July 2021.

Subtest Discrepancy Analyses

Subtest Comparisons	Scaled Score 1	Scaled Score 2	Difference	Critical Value (.10)	Significant	Base Rate
Picture Memory vs. Design Learning	7	7	0	3.04	N	-
Story Memory vs. Verbal Learning	3	4	-1	2.03	N	-
Finger Windows vs. Number Letter	11	10	1	3.11	N	-
Picture Memory Delayed vs. Design Learning Delayed	5	4	1	3.23	N	-
Story Memory Delayed vs. Verbal Learning Delayed	3	4	-1	2.51	N	-
Picture Memory Recognition vs. Design Learning Recognition	2	2	0	2.83	N	
Story Memory Recognition vs. Verbal Learning Recognition	2	6	-4	2.99	Υ	<=10%
Visual Working Memory vs. Verbal Working Memory	6	7	-1	2.25	N	-

Index, Subtest, and Process Score Interpretations

General Immediate Memory Index

The General Immediate Memory Index is an estimate of overall immediate recall, measured across a wide range of tasks. The General Immediate Memory Index is derived from the scores earned on the Verbal Immediate Memory Index, the Visual Immediate Memory Index, and the Attention/Concentration Index.

Performance between two or more of the indexes comprising the General Immediate Memory Index was found to be inconsistent (indicated by a statistically significant difference and a very low base rate). Suggesting that the use of the General Immediate Memory Index as an estimate of overall memory abilities may be questionable so interpret with extreme caution. In this case, P's Verbal Immediate Memory Index vs. Attention/Concentration Index scores were significantly discrepant. In general, the wider the discrepancy the more significant the difference between scores, clinical implications for these results are discussed in the Index Discrepancy Analyses section of this report. A more meaningful analysis may lie in examining the contributing index scores and the subtest scores for hypotheses as to P's relative strengths and weaknesses across memory demands.

It is important to note that although much of P's performance is below age expectations, the variability of the underlying index scores suggests that interpreting the General Immediate Memory Index alone may hide the impact of a low index score. Both the overall index score and discrepancies may have a significant impact on interpretations of everyday memory functioning.

P earned a standard score of 77 on this index, which is in the very low score range. P's overall performance suggests that new learning and immediate recall is considerably lower than same-age peers. This level of weakness will likely be evident in academic, work, and home settings.

Visual Immediate Memory Index

The Visual Immediate Memory Index is an estimate of how well P can learn and recall both meaningful and minimally-related rote visual information. The Visual Immediate Memory Index is derived from the scaled scores earned on Picture Memory and Design Learning.

Performance between the two subtests comprising the Visual Immediate Memory Index was found to be consistent (indicated by a statistically nonsignificant difference and a high base rate). Suggesting that this index may be considered a reasonable estimate of visual immediate recall abilities.

P earned a standard score of 82 on this index, which is in the low average score range. P's low average performance on the Visual Immediate Memory Index suggests visual learning and immediate recall at levels somewhat lower than same-age peers, and this may be noticeable with everyday visual memory demands found in academic, work, and home settings.

Picture Memory

The Picture Memory subtest measures immediate recall of contextual visual information. P earned a scaled score of 7 on this subtest, which is in the low average score range. It is important to examine the Commission Errors score along with the scaled score for this subtest.

Given this level of performance, P is likely to remember meaningful visual information at a level somewhat lower than same-age peers, and this may be evident for everyday tasks such as recalling the content of pictures on a prior page or a computer screen. Comparing Picture Memory performance with Design Learning and Finger Windows performance may yield hypotheses as to P's recall of meaningful versus nonmeaningful visual information.

Process Scores - Picture Memory

	Raw Score	Mean (SD)	Base Rate
Commission Errors	7	3.2 (2.6)	<=5%

Commission Errors

The Commission Errors score provides a measure of disinhibited responding or random responding. Because the Picture Memory subtest does not penalize examinees for errors, overresponding can inflate the Picture Memory score.

P made a total of 7 commission error(s), which is very high compared to same-age peers and warrants caution when interpreting the Picture Memory score, because it is likely inflated due to excessive guessing or impulsive responding.

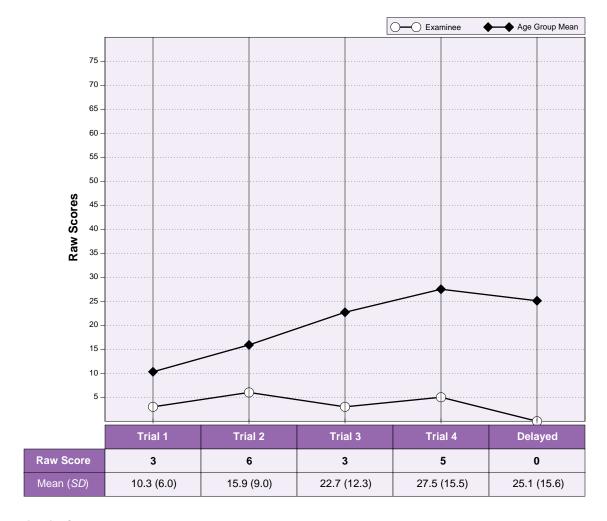
Design Learning

The Design Learning subtest provides an estimate of how well P can learn and recall abstract visual information. P earned a scaled score of 7 on this subtest, which is in the low average score range.

Given this level of performance, P is expected to learn and remember new, abstract visual information somewhat less well than same-age peers. This may be noticeable when P performs everyday tasks with visual memory demands, such as accurately copying a diagram from a computer screen or white board, relocating a room just visited in a new building, or reproducing the letter sequence of a newly-learned phonetically-irregular word. When interpreting this level of weakness, consider other possible contributors in addition to visual memory deficits, such as poor visual acuity, spatial skill deficits, fine-motor impairment, and inefficient executive functioning. High anxiety may also play a role, especially on Trials 1 and 2.

Process Scores - Design Learning

	Raw Score	Mean (SD)	Base Rate
Trial 1	3	10.3 (6.0)	<=15%
Trial 2	6	15.9 (9.0)	<=15%
Trial 3	3	22.7 (12.3)	<=5%
Trial 4	5	27.5 (15.5)	<=5%
Delayed	0	25.1 (15.6)	<=5%
Learning Slope (Trial 4 - Trial 1)	2	17.2 (12.5)	<=15%
Upper Left Quadrant	3	19.2 (13.4)	<=15%
Upper Right Quadrant	0	10.1 (9.5)	<=15%
Lower Left Quadrant	0	16.2 (13.2)	<=15%
Lower Right Quadrant	14	18.0 (11.3)	-



Quadrant Analysis

P's Design Learning performance is also reported by each quadrant. These data can be used to determine if P performed noticeably better within one or more quadrants of the card. This information may be useful in identifying phenomena such as a visual field cut or neglect, as well as inefficient visual scanning and visual search strategies.

Learning Slope Analysis

This score is the difference between Trials 1 and 4 of Design Learning, and provides a quick estimate of P's rate of learning.

The interpretation of the Learning Slope Analysis is highly contingent on the individual's trial scores; consult the Learning Grid for the pattern of P's performance. This score difference suggests that P's pace of learning over the four Design Learning trials was less efficient than expected and likely has clinical relevance.

Learning Grid

The Design Learning trial scores can be used to create a learning curve that compares P's performance across trials to same-age peers. A curve that is consistently above or below same-age peers indicates learning of new visual information better or worse, respectively, than same-age peers. A relatively flat curve suggests difficulties learning despite repeated review. Conversely, a curve that starts out lower but then "catches up" with same-age peers suggests that P may struggle with initial learning but improves with repeated exposures. Variable performance over trials may suggests some degree of attentional dysregulation, difficulties with executive function, or an irregular visual encoding system.

Verbal Immediate Memory Index

The Verbal Immediate Memory Index is an estimate of how well P can learn and recall both contextually-meaningful and relatively less-meaningful verbal information. The Verbal Immediate Memory Index is derived from the scaled scores earned on Story Memory and Verbal Learning.

Performance between the two subtests comprising the Verbal Immediate Memory Index was found to be consistent (indicated by a statistically nonsignificant difference and a high base rate). Suggesting that the Verbal Immediate Memory Index may be considered a reasonable estimate of verbal memory abilities.

P earned a standard score of 62 on this index, which is in the extremely low score range. Examinees performing within the extremely low range are expected to learn and remember verbal information at levels markedly lower than same-age peers. This will likely be evident with everyday immediate verbal memory demands found in academic, work, and home settings.

Beyond verbal memory weakness, consider other influences that could contribute to P's lower performance, such as attention, language organization, motivation, intellectual, and peripheral hearing weaknesses.

Story Memory

The Story Memory subtest assesses immediate recall of extended, meaningful verbal content. P earned a scaled score of 3 on this subtest, which is within the extremely low score range.

This level of immediate recall for contextualized information is markedly lower than that of same-age peers. This suggests that P will have some weakness with short-term recall of narrative tasks like remembering the content of conversation or news on the radio. In addition to memory weakness, also consider other possible contributing factors such as deficits in attention, receptive/expressive language, hearing, intellectual weakness, and aspects of executive functioning when formulating an interpretation of P's scores.

Process Scores - Story Memory

	Raw Score	Scaled Score
Story C	2	3
Story D	1	4
Verbatim	0	1
Gist	3	5

Process Scores - Individual Story Comparison

	Scaled Score 1	Scaled Score 2	Difference	Critical Value (.10)	Significant	Base Rate
Story C vs. Story D	3	4	-1	2.60	N	-

Story C vs. Story D Comparison

Scaled scores are provided for each of the two stories administered for the subtest, which allows examination of consistency of narrative recall.

The performance between the stories is consistent, so the Story Memory subtest may be considered an appropriate estimate of P's immediate recall of contextual verbal material.

Verbatim and Gist Scores

Performance on Story Memory is, in part, related to recalling both specific details (verbatim) and details tending to preserve meaning (gist) of the stories presented. Individuals who achieve roughly equivalent Verbatim and Gist scores demonstrate comparable recall of both details and contextual meaning of an extended verbal narrative. Individuals who recall more verbatim than gist details may experience certain learning disorders such as language processing, developmental, and autistic spectrum disorders, as well as neurological conditions such as head injury. It is important to integrate assessment findings with clinical presentation. Individuals who recall more gist than verbatim details may experience attention and/or language-based learning weaknesses. This may have implication for such activities as recalling important details from a news show or recalling recipes from a book. When forming interpretations, note that these scores are less sensitive among very young and very old examinees.

Verbal Learning

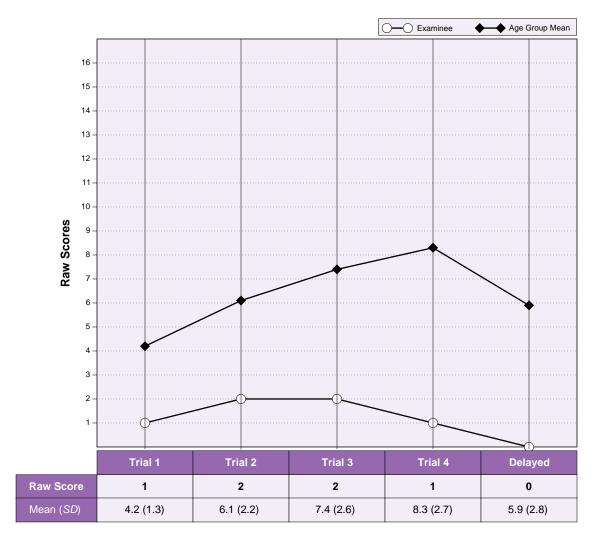
The Verbal Learning subtest provides an estimate of how well P can learn relatively unrelated verbal information across multiple exposures. P earned a scaled score of 4 on this subtest, which is in the very low score range.

Given this level of performance, P is expected to learn and remember relatively unrelated verbal information noticeably less well than same-age peers. This may be evident when P performs everyday verbal memory tasks, such as remembering the ingredients to gather for a recipe after having them read aloud (adult), or remembering components of a dictated homework assignment (youth).

When interpreting this level of performance, consider other possible contributors in addition to immediate verbal memory deficits, such as poor hearing, poor rote memory, language deficits, inattention, high anxiety, aspects of executive dysfunction, intellectual weakness, fatigue, and low motivation.

Process Scores - Verbal Learning

	Raw Score	Mean (SD)	Base Rate
Trial 1	1	4.2 (1.3)	<=5%
Trial 2	2	6.1 (2.2)	<=5%
Trial 3	2	7.4 (2.6)	<=5%
Trial 4	1	8.3 (2.7)	<=5%
Delayed	0	5.9 (2.8)	<=5%
Learning Slope (Trial 4 - Trial 1)	0	4.2 (2.3)	<=5%
Intrusions	6	1.8 (2.5)	<=15%
Repetitions	1	2.1 (3.9)	-
Primacy	50	29.8 (11.5)	-
Recency	33	32.7 (12.7)	-



Intrusions

In the process of recalling words recited by the examiner, sometimes the examinee mistakenly says words that are not on the list. These are intrusions.

P demonstrated a significant number of intrusions compared to same-age peers. Intrusions may occur for a variety of reasons including difficulties with self-monitoring, perseverative thinking, or disorganized thinking. Qualitative examination of the intrusions may be helpful, including noting the presence of intrusions across all trials or just the first two, and whether the intrusions were semantically or phonetically related to recited words.

Repetitions

In the process of recalling words recited by the examiner, sometimes the examinee repeats words already said within a trial. These are repetitions.

P demonstrated a significant number of repetitions compared to same-age peers. Repetitions may occur for a variety of reasons including difficulties with self-monitoring, perseverative thinking, or disorganized thinking. Qualitative examination of the repetitions may be helpful, including noting the presence of consistent repetitions across several trials, subjective recognition that a word may have been repeated, or the presence of repeated intrusions.

Primacy

When presented with a list of words, individuals generally remember the words from the beginning and end of the list better than words from the middle of the list. Primacy is the percentage of words recalled from the beginning of the list across all four trials, controlling for the total number of remembered words.

The percentage of words recalled by P from the beginning of the word list was within normal limits and is not of clinical concern.

Recency

Recency is the percentage of words recalled from the end of the list across all four trials controlling for the total number of remembered words.

The percentage of words recalled by P from the end of the word list was within normal limits and is not of clinical concern.

Learning Slope Analysis

This score is defined as the difference between Trials 1 and 4 of Verbal Learning, and provides a quick estimate of P's rate of verbal learning.

The interpretation of the Learning Slope Analysis is highly contingent on the individual's trial scores; consult the Learning Grid for the pattern of P's performance. This score difference suggests that P's pace of learning over the four Verbal Learning trials was less efficient than expected and likely has clinical relevance.

Learning Grid

Verbal Learning trial scores create a learning curve that can be compared to the performance of P's same-age peers. A curve that is consistently above or below same-age peers indicates learning of new verbal information better or worse, respectively, than same-age peers. A relatively flat curve may suggest P has difficulties learning despite repeated exposure. Conversely, a curve that starts out lower but then "catches up" with same-age peers, suggests that P has difficulties with initial learning but improves with repeated exposures. A variable performance over trials may suggest P has some degree of attentional dysregulation or difficulties with executive functioning. Such patterns have implications for recommendations related to review strategies.

Attention/Concentration Index

The Attention/Concentration Index provides an estimate of how well P can learn and recall attentionally-demanding, relatively rote, sequential information. Both auditory and visual information are sampled. The Attention/Concentration Index is derived from the scaled scores earned on Finger Windows and Number Letter.

Performance between the two subtests comprising the Attention/Concentration Index was found to be consistent (indicated by a statistically nonsignificant difference and a high base rate). Suggesting that this index is a reasonable estimate of rote, sequential memory and sustained concentration over brief intervals.

P earned a standard score of 103 on this index, which is in the average score range. An Attention/Concentration Index score within the average range suggests P has age-expected abilities for processing and recalling rote information across verbal and visual sensory modalities. Such skills will likely be evident in academic, work, and home settings.

Finger Windows

The Finger Windows subtest measures rote, sequential, immediate recall of visual-spatial information. P earned a scaled score of 11 on this subtest, which is in the average score range.

Given this level of performance, P is expected to learn and remember sequences of rote visual information at levels comparable to same-age peers. This may relate to tasks such as the ability to scan one or more measures of music and accurately remember the sequence of notes, remembering the inter-related part of a blueprint or plans recently displayed, and view a map before leaving to find an unfamiliar, nearby location and not get lost.

Number Letter

The Number Letter subtest measures rote, sequential, immediate recall of auditory symbolic information. P earned a scaled score of 10 on this subtest, which is in the average score range.

Given this level of performance, P is expected to learn and remember sequences of rote auditory information at levels comparable same-age peers. For everyday tasks, this may relate to the ability to recall sport scores, phone numbers, or zip codes immediately after hearing them.

Sentence Memory

The Sentence Memory subtest evaluates immediate recall of limited amounts of meaningful verbal information. P earned a scaled score of 8 on this subtest, which is in the average score range.

Given this level of performance, P is expected to perform as well as same-age peers when remembering the content of a spoken sentence, such as being able to follow a brief set of oral directions, and accurately relate a brief message. While this subtest is useful on its own, it may also be of diagnostic value when compared to Story Memory (containing lengthier meaningful verbal content) and Number Letter (requiring little meaningful verbal content).

Immediate/Delayed Recall Comparisons

Subtest Comparisons	Scaled Score 1	Scaled Score 2	Difference	Critical Value (.10)	Significant	Base Rate
Picture Memory vs. Picture Memory Delayed	7	5	2	3.69	N	-
Design Learning vs. Design Learning Delayed	7	4	3	2.46	Y	<=5%
Story Memory vs. Story Memory Delayed	3	3	0	1.90	Z	-
Verbal Learning vs. Verbal Learning Delayed	4	4	0	2.61	N	-

Note. Scaled scores for Verbal Learning Delayed and Design Learning Delayed may be restricted due to the skewed distributions of the raw scores for these subtests. Interpret significant discrepancies with Verbal Learning Delayed and Design Learning Delayed scores in the high average and above ranges with caution.

General Delayed Index

The General Delayed Index is an estimate of longer-term storage of the information P learned on the four immediate memory subtests (i.e., Picture Memory, Story Memory, Design Learning, and Verbal Learning) and is derived from the scores earned on the Visual Delayed and Verbal Delayed Indexes.

The Visual Delayed and Verbal Delayed Indexes were consistent (indicated by a statistically nonsignificant difference and a high base rate). Suggesting that the General Delayed Index may be considered a reasonable estimate of overall delayed recall abilities. However, as the General Delayed Index is a composite index, it is also important to evaluate its contributing index and subtest scores for consistency when forming hypotheses as to P's longer-term memory strengths and weaknesses.

P earned a standard score of 59 on this index, which is in the extremely low score range. Examinees earning a General Delayed Index score within the extremely low range typically demonstrate markedly weaker ability to retain visual and verbal information over time when compared to same-age peers. This corresponds to a very limited capacity to transfer information from short-term to long-term memory or retrieve it efficiently on demand. This level of weakness will likely be very evident in academic, work, and home settings.

Visual Delayed Index

The Visual Delayed Index is an estimate of how well P can retain and retrieve both meaningful and minimally-related visual information after a 20-30 minute delay. The Visual Delayed Index is derived from the subtest scaled scores of Picture Memory Delayed and Design Learning Delayed.

Performance between the two subtests comprising the Visual Delayed Index was found to be consistent (indicated by a statistically nonsignificant difference and a high base rate). Suggesting that this index may be considered a reasonable estimate of P's visual delayed recall abilities.

P earned a standard score of 67 on this index, which is in the extremely low score range. Given this level of performance, P is expected, over time, to remember visual content at levels markedly below same-age peers. This may be noticeable across tasks with extended visual retention demands and with everyday visual memory demands found in academic, work, or home settings. With this level of performance, consider other possible influences other than memory weakness, such as problems with visual acuity, spatial, executive, intellectual, and attention weaknesses.

Picture Memory Delayed

The Picture Memory Delayed subtest provides an estimate of visual memory recall over a moderate period of time. P earned a scaled score of 5 on this subtest, which is within the very low score range.

Given this level of performance, P is expected to remember recently-learned meaningful visual information at levels notably below that of same-age peers. For example, tasks like recalling details from an illustration or an array of objects, or retaining visual details from places previously visited may be weak for P. Other factors that might contribute to this level of performance may include poor visual acuity, attention problems, poor visual scanning, and marginal effort due to fatigue.

Picture Memory vs. Picture Memory Delayed Comparison

Comparing P's performance on the Picture Memory subtest with that of the Picture Memory Delayed subtest provides an estimate of visual information retained with the passage of time.

P's performance between Picture Memory and Picture Memory Delayed was consistent (indicated by a statistically nonsignificant difference and a high base rate), suggesting that recall for contextual visual information after 20-30 minutes was at a similar level as immediate recall.

Design Learning Delayed

The Design Learning Delayed subtest provides an estimate of longer-term memory for abstract visual information learned using repeated exposures. P earned a scaled score of 4 on this subtest, which is in the very low score range.

Given this level of performance, P is expected to remember abstract visual content at levels notably lower than same-age peers. This may be noticeable during everyday memory tasks with longer-term demands, such as recalling details of a blueprint, a travel route devised earlier when studying a map (adult), or correctly spelling a previously-learned phonetically-irregular word (youth). Other factors that might contribute to this level of performance may include poor visual acuity, spatial skill deficits, fine-motor impairment, and inefficient executive functioning.

Process Score - Retention Score

Trial Comparison	Raw Score 1	Raw Score 2	Difference	Mean (<i>SD</i>)	Base Rate
Design Learning Delayed Total - Design Learning Trial 4	0	5	-5	-2.4 (7.5)	

Retention

The Retention score is an estimate of visual memory decay (i.e., forgetting) over time. This score provides a direct comparison of what is learned on Design Learning Trial 4 with the Design Learning Delayed subtest administered 20-30 minutes later.

The amount of forgetting suggested by P's score falls within an acceptable range. However, it is also important to consider the amount of information recalled for the immediate and delayed recall conditions when considering the clinical significance of this Retention score. That is, an examinee may achieve low raw scores on Trial 4 that reflect encoding difficulties but may remember a consistent amount for the delayed recall condition to achieve an adequate Retention score.

Design Learning vs. Design Learning Delayed Comparison

Comparing P's performance on the Design Learning subtest with that of the Design Learning Delayed subtest provides an estimate of visual information retained with the passage of time.

P's drop in performance between the Design Learning and the Design Learning Delayed subtests suggests some clinical concern (indicated by a statistically significant difference and a base rate of <=5%). A comparison with performance on the Design Learning Recognition subtest may help determine whether the apparent decay in recall is due to difficulties with actual information loss or with retrieval. If the Design Learning Recognition score suggests similar results, a more general concern about P's visual memory storage is raised. Examine performance on the Picture Memory versus Picture Memory Delayed subtests, as well as the Retention score, to see if a similar pattern of visual memory decay in is found.

Verbal Delayed Index

The Verbal Delayed Index is an estimate of how well P can store and retrieve both meaningful and minimally-related verbal information after a 20-30 minute delay. The Verbal Delayed Index is derived from the subtest scaled scores of Story Memory Delayed and Verbal Learning Delayed.

Performance between the two subtests comprising the Verbal Delayed Index was found to be consistent (indicated by a statistically nonsignificant difference and a high base rate). Suggesting that this index may be considered a reasonable estimate of delayed verbal recall.

P earned a standard score of 62 on this index, which is in the extremely low score range. Given this level of performance, P is expected to subsequently recall previously-acquired verbal content at levels markedly lower than same-age peers. This may be noticeable with everyday verbal memory demands found in academic, job, and home settings.

Story Memory Delayed

The Story Memory Delayed subtest measures the free recall of meaningful narrative following a 20-30 minute delay. P attained a scaled score of 3 on the Story Memory Delayed subtest, which is in the extremely low score range.

P's level of performance is markedly lower than expected compared to same-age peers. P is expected to have difficulties recalling information in everyday tasks like subsequently remembering content of a conversation, podcast, or reading selection. In addition to academic and job implications, this may also impact P's social functioning. With this low level of performance, consider other nonmemory influences that may also be influencing this score, such as hearing difficulties, language weaknesses, lower cognitive ability, and lower motivation because of fatigue.

Story Memory vs. Story Memory Delayed Comparison

Comparing P's performance on the Story Memory subtest with that of the Story Memory Delayed subtest provides an estimate of verbal memory decay (i.e., forgetting) over time.

P's performance between Story Memory and Story Memory Delayed was consistent (indicated by a statistically nonsignificant difference and a high base rate), indicating that P was able to recall contextual verbal information after a 20-30 minute delay at a comparable level as performed with immediate recall.

Verbal Learning Delayed

The Verbal Learning Delayed subtest provides an estimate of longer-term memory for relatively unrelated verbal information learned using repeated exposures. P earned a scaled score of 4 on this subtest, which is in the very low score range.

Given this level of performance, P is expected to remember previously-learned, unrelated verbal content at levels notably lower than same-age peers. This may be noticeable during everyday tasks with longer-term verbal memory demands, such as recalling items from a shopping list, or remembering specific factual content for a history test. With this level of performance, consider other factors beyond memory weakness that may be impactful, such as hearing difficulties, language disorder, intellectual weaknesses, fatigue, and low motivation.

Process Score - Retention Score

Trial Comparison	Raw Score 1	Raw Score 2	Difference	Mean (<i>SD</i>)	Base Rate
Verbal Learning Delayed Total - Verbal Learning Trial 4	0	1	-1	-2.4 (2.3)	

Retention

The Retention score is an estimate of verbal memory decay (i.e., forgetting) over time. This score provides a comparison between what is learned on Verbal Learning Trial 4 with the Verbal Learning Delayed subtest administered 20-30 minutes later.

The amount of forgetting suggested by this score falls within an acceptable range compared to that of P's same-age peers. However, it is also important to examine the amount of information recalled for the immediate and delayed recall conditions when considering the clinical significance of this score. That is, an examinee may achieve low raw scores on Trial 4 that reflect encoding difficulties but may remember a sufficient amount for the delayed recall condition to achieve an adequate Retention score.

Verbal Learning vs. Verbal Learning Delayed Comparison

P's levels of age-adjusted performance for the Verbal Learning and Verbal Learning Delayed subtests were consistent (indicated by a statistically nonsignificant difference and a high base rate), suggesting that P recalled relatively-unrelated verbal information after a 20-30 minute delay at a similar level as immediate recall.

Delayed Recall/Recognition Comparisons

Subtest Comparisons	Scaled Score 1	Scaled Score 2	Difference	Critical Value (.10)	Significant	Base Rate
Picture Memory Delayed vs. Picture Memory Recognition	5	2	3	3.15	Z	1
Design Learning Delayed vs. Design Learning Recognition	4	2	2	2.91	N	-
Story Memory Delayed vs. Story Memory Recognition	3	2	1	2.45	N	-
Verbal Learning Delayed vs. Verbal Learning Recognition	4	6	-2	3.04	N	-

Note. The scaled score range for the Recognition subtests are restricted due to the skewed distributions of the raw scores for these subtests. Interpret significant discrepancies with recognition subtest scores in the average range and above with caution.

General Recognition Index

The General Recognition Index is an estimate of how well P retained information previously presented on the immediate recall subtests (i.e., Picture Memory, Story Memory, Design Learning, and Verbal Learning) and is derived from the scores earned on the Visual Recognition Index and Verbal Recognition Index.

Performance between Visual Recognition Index and Verbal Recognition Index was found to be consistent (indicated by a statistically nonsignificant difference and a high base rate). Suggesting that the General Recognition Index may be considered a reasonable estimate of overall recognition memory. However, as the General Recognition Index is a composite index, it is important to evaluate its contributing index and subtest scores for consistency when forming hypotheses as to P's longer-term memory strengths and weaknesses.

P earned a standard score of 55 on this index, which is in the extremely low score range. P demonstrates markedly weaker ability to store previously-learned visual and verbal information compared to same-age peers. Since recognition memory tends to be robust, it is important to examine the General Immediate Memory Index versus General Delayed Index and the General Delayed Index versus General Recognition Index discrepancy analyses when interpreting this recognition score. This level of weakness raises concerns related to significant memory impairment overall, significant memory decay with time, or questionable effort.

Visual Recognition Index

The Visual Recognition Index is an estimate of how well P can recognize previously-learned meaningful- and minimally-related, rote visual information. The Visual Recognition Index is derived from the scaled scores earned on Picture Memory Recognition and Design Learning Recognition.

Performance between the two subtests comprising the Visual Recognition Index was found to be consistent (indicated by a statistically nonsignificant difference and a high base rate). Suggesting that this index may be considered a reasonable estimate of visual recognition abilities.

P earned a standard score of 55 on this index, which is in the extremely low score range. Compared to same-age peers, examinees earning a Visual Recognition Index score within this range typically demonstrate markedly weaker ability to recognize previously-learned visual information. This suggests P has a reduced capacity in encoding or transferring visual information from short-term to long-term storage. In addition to difficulties with encoding, storage, lower cognitive ability, or attention/concentration, low scores on recognition measures may also be indicative of low effort so consult the Performance Validity Indicator.

Picture Memory Recognition

The Picture Memory Recognition subtest provides a measure of recognition memory for meaningful or contextualized visual information. P earned a scaled score of 2 on this subtest, which is in the extremely low score range.

Compared to same-age peers, examinees earning a Picture Memory Recognition score within this range typically demonstrate a markedly weaker ability to recognize previously-learned meaningful visual information. This suggests P has a much-reduced capacity in encoding or transferring visual information from short-term to long-term storage. In addition to difficulties with encoding, storage, lower cognitive ability, or attention/concentration, low scores on recognition measures may also be indicative of low effort so consult the Performance Validity Indicator.

Picture Memory Delayed vs. Picture Memory Recognition Comparison

In addition to knowing how much newly learned visual information is later retained using a free recall procedure (i.e., the Picture Memory Delayed subtest), it is sometimes important to determine how much of that information can be retrieved by cueing (i.e., Picture Memory Recognition subtest). This comparison is especially important if the Picture Memory Delayed score is significantly lower than the Picture Memory score, suggesting more forgetting than expected. A comparison between P's performance on Picture Memory Recognition and Picture Memory Delayed helps discern if the newly learned visual information has been forgotten or whether it is still stored but cannot be efficiently retrieved.

P's performance between the Picture Memory Delayed and Picture Memory Recognition was consistent (indicated by a statistically nonsignificant difference and a high base rate), suggesting that P was able to recognize contextual visual information at a level consistent with Picture Memory Delayed performance.

Design Learning Recognition

The Design Learning Recognition subtest provides a measure of recognition of previously-learned abstract visual information. P earned a scaled score of 2 on this subtest, which is in the extremely low score range.

Compared to same-age peers, examinees earning a Design Learning Recognition score within this range typically show markedly weaker ability to recognize previously-learned abstract visual information. This suggests P has a much reduced capacity in encoding or transferring visual information from short-term to long-term storage. In addition to difficulties with encoding, storage, lower cognitive ability, or attention/concentration, low scores on recognition measures may also be indicative of low effort.

Design Learning Delayed vs. Design Learning Recognition Comparison

In addition to knowing how much newly-learned visual information the examinee can recall after a time delay, it is sometimes important to determine how much information can be retrieved by cueing (i.e., recognition). This comparison is especially important if the Design Learning Delayed score is significantly lower than the Design Learning score, which suggests more forgetting than expected. A comparison between P's performance on Design Learning Recognition and Design Learning Delayed helps determine if the newly-learned visual information has been forgotten or whether it is still stored but cannot be efficiently retrieved.

P's performance between the Design Learning Delayed and Design Learning Recognition was consistent (indicated by a statistically nonsignificant difference and a high base rate), suggesting that P was able to recognize relatively-abstract visual information at a level consistent with Design Learning Delayed performance.

Verbal Recognition Index

The Verbal Recognition Index is an estimate of how well P can recognize both meaningful- and minimally-related rote verbal information after a time delay. The Verbal Recognition Index is derived from the scaled scores earned on Story Memory Recognition and Verbal Learning Recognition.

The difference between Story Memory Recognition and Verbal Learning Recognition was found to be inconsistent (indicated by a statistically significant difference and a base rate of <=10%). Interpret the Verbal Recognition Index as an overall estimate of verbal recognition abilities with caution. Consider examining its contributing subtest scores for generating hypotheses about P's relative strengths and weaknesses.

Although P's Verbal Recognition Index score was well below average, the variability of the underlying subtest scores suggests that interpreting the Verbal Recognition Index alone may hide the impact of a low subtest score. Both the overall index score and discrepancies may have a significant impact on interpretations of everyday memory functioning.

P earned a scaled score of 63 on this index, which is in the extremely low score range. Compared to same-age peers, examinees earning a Verbal Recognition Index score within this range typically demonstrate markedly weaker ability to recognize previously-learned verbal information. This suggests P has a reduced capacity in encoding or transferring verbal information from short-term to long-term storage. In addition to difficulties with encoding, storage, lower cognitive ability, or attention/concentration, low scores on recognition measures may also be indicative of low effort.

Story Memory Recognition

The Story Memory Recognition subtest provides a measure of recognition for a previously presented verbal narrative; the subtest assesses if verbal information is stored, even if it cannot be retrieved on demand. P earned a scaled score of 2 on this subtest, which is in the extremely low score range.

Compared to same-age peers, examinees earning a Story Memory Recognition score within this range typically show markedly weaker ability to recognize previously-learned narrative verbal information. This suggests P has a much reduced capacity in encoding or transferring verbal information from short-term to long-term storage. In addition to difficulties with encoding, storage, lower cognitive ability, or attention/concentration, low scores on recognition measures may also be indicative of low effort so consult the Performance Validity Indicator.

Story Memory Delayed vs. Story Memory Recognition Comparison

In addition to knowing how much newly learned verbal information the examinee can recall after a time delay, it is useful to determine how much information can be retrieved by cueing (i.e., recognition). This comparison is especially important if the Story Memory Delayed score is significantly lower than the Story Memory score, which suggests more forgetting than expected. A comparison between P's performance on Story Memory Recognition and Story Memory Delayed helps determine if the newly learned verbal information has been forgotten or whether it is still stored but cannot be efficiently retrieved.

P's performance between Story Memory Delayed and Story Memory Recognition was consistent (indicated by a statistically nonsignificant difference and a high base rate). This suggests that P is able to recognize meaningful verbal material at a level consistent with Story Memory Delayed performance.

Verbal Learning Recognition

The Verbal Learning Recognition subtest provides a measure of recognition memory for a previously presented word list; the subtest assesses if that verbal information is stored, even if it cannot be retrieved on demand. P earned a scaled score of 6 on this subtest, which is in the low average score range.

Compared to same-age peers, examinees earning a Verbal Learning Recognition score within this range typically demonstrate weaker ability to recognize previously-learned relatively-unrelated verbal information. This suggests P has lower abilities in encoding or transferring for verbal information from short-term to long-term storage.

Process Scores - Verbal Learning Recognition

	Raw Score	Mean (SD)	Base Rate
Semantic Errors	6	0.4 (0.8)	<=5%
Phonological Errors	1	0.5 (1.2)	<=15%

Verbal Learning Recognition Process Score

For most items on the Verbal Learning Recognition subtest, the words used in the multiple-choice questions include the correct word, a word with similar meaning (semantic error), and a word that sounds like the correct word (phonological error); there is also a "none" choice.

Semantic errors

Raw scores of 0 should not be interpreted as clinically significant, regardless of the base rate. When the level of semantic errors falls at or below a base rate of 5%, comprehension and language difficulties may be a concern.

Phonological errors

Raw scores of 0 should not be interpreted as clinically significant, regardless of the base rate. When the level of phonological errors falls at or below a base rate of 5%, sound discrimination, language, or hearing may be a concern.

Verbal Learning Delayed vs. Verbal Learning Recognition Comparison

In addition to knowing how much newly learned verbal information the examinee can recall after a time delay, it is useful to determine how much information can be retrieved by cueing (i.e., recognition). This comparison is especially important if the Verbal Learning Delayed score is significantly lower than the Verbal Learning score, which suggests more forgetting than expected. A comparison between P's performance on Verbal Learning Recognition and Verbal Learning Delayed helps determine if the newly learned verbal information has been forgotten or whether it is still stored but cannot be efficiently retrieved.

P's performance between Verbal Learning Delayed and Verbal Learning Recognition was consistent (indicated by a statistically nonsignificant difference and a high base rate), suggesting that P was able to recognize the verbal material at a level consistent with Verbal Learning Delayed performance.

Story Memory Recognition vs. Verbal Learning Recognition Discrepancy Analysis

Compared to same-age peers, P's better performance on Verbal Learning Recognition than on Story Memory Recognition may suggest relative strength in recognizing previously-learned unrelated verbal information compared to more meaningful verbal information. Note that there is a different learning format between the two subtests, with the Verbal Learning Recognition score reflecting repeated exposures to the word list over trials, and the Story Memory Recognition score reflecting a single exposure learning. Other factors may contribute to this discrepancy including speech/language difficulties, intellectual deficits, and fatigue.

Working Memory Index

The Working Memory Index provides an estimate of short-term recall in which executive functions are needed to use and modify the original information. The Working Memory Index is derived from the scaled scores earned on Verbal Working Memory and Visual Working Memory.

Performance between the two subtests comprising the Working Memory Index was found to be consistent (indicated by a statistically nonsignificant difference and a high base rate). Suggesting that this index may be considered a reasonable estimate of working memory abilities. Comparing P's performance on the Working Memory Index with the rote recall tasks on the Attention/Concentration Index may provide a fuller understanding of the role executive functions play in P's memory functioning.

P earned a standard score of 80 on this index, which is in the low average score range. P's overall performance on the Working Memory Index suggests weakness in retaining and mentally manipulating visual and verbal information to complete a task compared to same-age peers.

Visual Working Memory

The Visual Working Memory subtest provides an estimate of short-term visual recall in which executive functions are utilized and manipulate information. P earned a scaled score of 6 on this subtest, which is in the low average score range.

Compared to same-age peers, P demonstrates weaknesses in the ability to recall and manipulate visual information. This suggests some difficult functioning with tasks requiring visual reasoning, including some areas of mathematics (e.g., geometry) and early reading skills.

Verbal Working Memory

The Verbal Working Memory subtest provides an estimate of short-term verbal recall in which executive functions are utilized and modify information. P earned a scaled score of 7 on this subtest, which is in the low average score range.

Compared to same-age peers, P demonstrates weaknesses in the ability to recall and manipulate verbal information. This suggests some difficult functioning with tasks requiring verbal reasoning including multi-step algebra problems and reorganizing information previously read while continuing to read.

Interpretations of Index Discrepancy Analyses

General Immediate Memory Index vs. General Delayed Index

The difference between the General Immediate Memory Index and the General Delayed Index is statistically and clinically significant with a base rate of <=2%. This suggests that with the passage of time, more visual and verbal memory decay is experienced than expected based on immediate recall performance. The extent of P's recall difficulties over time may have some clinical relevance. As well, the General Immediate Memory Index may overestimate memory ability in everyday life, given P's apparent amount of forgetting. It is important to examine the contributing visual and verbal indexes and their subtests to determine the generality of the noted memory decay.

Screener Memory Index vs. Attention/Concentration Index

The standard score difference between the Screener Memory Index and Attention/Concentration Index is statistically and clinically significant with a base rate of <=2%. This finding suggests that, overall, P's immediate recall ability on rote, sequential visual and verbal tasks was stronger than performance on visual and verbal immediate memory tasks composed of more meaningful and complex material. Achieving a higher Attention/Concentration Index than Screener Memory Index can sometimes be attributable to the greater cognitive demands made by Screener Memory Index subtests (i.e., more complex language and spatial demands). Additionally, when the Attention/Concentration Index is significantly higher than the Screener Memory Index, P's memory skills may appear better than they actually are in everyday functioning. Compare P's Story Memory Gist scores to Verbatim scores, as well as the Sentence Memory versus Story Memory subtest scores to evaluate this hypothesis.

Screener Memory Index vs. Working Memory Index

P's performance on the Screener Memory Index and Working Memory Index is comparable. Although this difference was statistically significant, it was found relatively frequently with a base rate >= 25%. This finding suggests that, overall, P's working memory skills are at a level commensurate with general immediate recall abilities.

Visual Immediate Memory Index vs. Verbal Immediate Memory Index

The difference between the Visual Immediate Memory Index and Verbal Immediate Memory Index standard scores is statistically and clinically significant with a base rate of <=10%. This relative strength for P in visual memory may be due to weaker verbal memory or in other processes associated with verbal memory, such as language impairment or hearing difficulties. Examine the contributing subtests and process scores, the Verbal Delayed and Verbal Recognition Indexes, and the Sentence Memory subtest to substantiate the uniformity of this finding. Implications of this discrepancy will likely be apparent for academic, work, and home settings.

Visual Immediate Memory Index vs. Attention/Concentration Index

The difference between the Visual Immediate Memory Index and Attention/Concentration Index standard scores is statistically and clinically significant with a base rate of <=15%. This suggests P performs sequential rote memory tasks at higher levels than visual immediate recall tasks containing more complex and meaningful content.

Visual Immediate Memory Index vs. Visual Delayed Index

The difference between P's performance on the Visual Immediate Memory Index and the Visual Delayed Index standard scores is statistically and clinically significant with a base rate of <=5%. This suggests that with the passage of time, P experiences more visual memory decay than is expected based on immediate recall performance. The extent of P's recall difficulties over time likely has clinical relevance. As well, the Visual Immediate Memory Index likely overestimates P's visual memory abilities in everyday life given the amount of forgetting that apparently occurs. Examine the individual contributing subtests to determine the generality of the noted memory decay.

Verbal Immediate Memory Index vs. Attention/Concentration Index

The difference between the Verbal Immediate Memory Index and Attention/Concentration Index standard scores is statistically and clinically significant with a base rate of <=2%. Therefore, P performs sequential rote memory tasks at higher levels than immediate verbal recall tasks containing more complex and meaningful content. Sometimes this pattern is associated with lower overall ability in domains of verbal perception and reasoning, especially if both the Verbal Immediate Memory Index and Verbal Delayed Index reflect weakness.

Verbal Immediate Memory Index vs. Verbal Delayed Index

Standard score differences on the Verbal Immediate Memory Index and Verbal Delayed Index were not statistically or clinically significant. This suggests that P's overall level of verbal delayed recall is at a comparable level as overall verbal immediate recall.

Attention/Concentration Index vs. Working Memory Index

The difference between the Attention/Concentration Index and Working Memory Index standard scores is statistically and clinically significant with a base rate of <=5%. This suggests that P performs better on rote recall tasks that require attention/concentration demands than on short-term, attentionally-demanding memory tasks that also require executive function skills. When forming hypotheses based on these results, also consider fatigue and motivation as potential contributors since Working Memory Index subtests are typically administered later in the testing session than Attention/Concentration Index subtests. As variability may exist within these summary scores, for clinical purposes, also analyze the contributing subtests for consistency.

Screener Memory Index vs. General Delayed Index

The standard score difference between the Screener Memory Index and General Delayed Index is statistically and clinically significant with a base rate of <=10%. This finding suggests that, for P, newly-learned visual and verbal information is subject to greater decay over time than expected based on immediate recall performance. The relative weakness in delayed recall may be noticeable in academic, work, and home settings.

General Delayed Index vs. General Recognition Index

P's standard scores earned on the General Delayed Index and the General Recognition Index were not found to be statistically or clinically significant (indicated by a nonsignificant critical value and a high base rate). This suggests that, for P, newly acquired visual and verbal information is stored sufficiently well so subsequent cuing can elicit recognition that is consistent with immediate recall.

Visual Recognition Index vs. Verbal Recognition Index

The standard score difference between the Visual Recognition Index and Verbal Recognition Index is not statistically or clinically significant. This suggests that, with the passage of time, P's recognition of newly learned visual material is performed as well as recognition of verbal material.

Visual Delayed Index vs. Verbal Delayed Index

The standard score difference between the Visual Delayed Index and Verbal Delayed Index is not statistically or clinically significant. This suggests that, with the passage of time, P's recall of newly learned visual material is performed as well as recall of verbal material.

Listing of Important Reported Findings

Index Comparisons	Standard Score 1	Standard Score 2	Difference	Base Rate
Visual Immediate Memory vs. Verbal Immediate Memory	82	62	20	<=10%
Verbal Immediate Memory vs. Attention/Concentration	62	103	-41	<=2%
Visual Immediate Memory vs. Attention/Concentration	82	103	-21	<=15%
Visual Immediate Memory vs. Visual Delayed**	82	67	15	<=5%
Attention/Concentration vs. Working Memory	103	80	23	<=5%
General Immediate Memory vs. General Delayed	77	59	18	<=2%
Screener Memory vs. Attention/Concentration	69	103	-34	<=2%
Screener Memory vs. General Delayed	69	59	10	<=10%
Subtest Comparisons	Scaled Score 1	Scaled Score 2	Difference	Base Rate
Story Memory Recognition vs. Verbal Learning Recognition	2	6	-4	<=10%
Immediate/Delayed Recall Comparisons	Scaled Score 1	Scaled Score 2	Difference	Base Rate
Design Learning vs. Design Learning Delayed	7	4	3	<=5%

End of Report