MPA Version 3.1.0 Report

Examinee: Sample Report **Age:** 12

School: Middle **Grade:** 6th

Examiner: Dr. Milton Dehn **Evaluation Dates:** 01/03/2019

The Memory Processes Analyzer (MPA) was used to conduct a multi-battery analysis of the examinee's memory processes and to identify the examinee's pattern of strengths and weaknesses (PSW) across memory processes. The MPA identifies statistically significant intra-individual memory strengths and weaknesses. A memory process is determined to be a deficit when a memory process score is both a below average weaknes and an intra-individual weakness. When a memory process score is both an above average strength and an intra-individual strength, the memory process is labeled as an asset.

Definitions of Specific Memory Processes

Phonological short-term memory(STM Phonological) stores sounds and words for just a few seconds. Phonological short-term memory is important for the development of oral language and basic reading skills. For example, vocabulary development depends heavily on adequate phonological short-term memory.

Visual-spatial short-term memory (STM Visual-Spatial) briefly stores visual perceptions of objects, patterns, images, and locations. Visual-spatial short-term memory is important for coordinated physical movement. In school, it is highly related with the development of mathematical skills. For example, understanding geometrical figures depends on visual-spatial short-term memory. Visual-spatial short-term memory

Verbal working memory (WM Verbal) manipulates and transforms verbal information that is being held in short-term memory or has been retrieved from long-term memory. For example, verbal working memory is engaged during reading comprehension and written expression. Verbal working memory

Visual-spatial working memory (WM Visual-Spatial) manipulates and transforms visual-spatial information that is being held in short-term memory or has been retrieved from long-term memory. For example, visual-spatial working memory is required in order to imagine what an object will look like if it is rotated.

Executive working memory (WM Executive) is engaged whenever a task requires the integration of verbal and visual-spatial information. Executive working memory is also the control center for working and short-term memory. For example, executive working memory is responsible for inhibiting information that is not related to the task at hand.

Verbal long-term recall (LTM Verbal Recall) involves remembering verbal information that is stored in long-tern memory. An example of verbal recall is remembering directions that were stated a few minutes earlier.

Examinee: Sample Report **Age:** 12

School: Middle **Grade:** 6th

Examiner: Dr. Milton Dehn **Evaluation Dates:** 01/03/2019

Visual-spatial long-term recall (LTM Visual-Spatial Recall) involves remembering visual-spatial information that is stored in long-term memory. Remembering someone's face or how to return to a specific location are examples of visual-spatial recall. Visual-spatial long-term recall

Encoding/Learning (LTM Encoding/Learning) is the process of transferring information from short-term memory into long-term memory. The formation of new memories and the initial learning of new material depend on the process of encoding.

Consolidation (LTM Consolidation) is an unconscious process that makes long-term memories stable, resistant to forgetting, and relatively permanent. When consolidation is dysfunctional or interrupted, an individual will display unusually rapid forgetting of information that has been encoded.

Storage (LTM Storage/Recognition) refers to information that is stored in long-term memory after the information has been encoded and consolidated. Individuals have more information stored in long-term memory than they can recall at any given moment. Recognition tests are used to determine whether knowledge or other information is still stored in long-term memory, even though it cannot be retrieved when desired.

Retrieval (LTM Retrieval Fluency) is the ability to quickly recall information that is stored in long-term memory. Retrieval can be automatic and unconscious, or it can be controlled and conscious. Individuals who lack retrieval fluency are often unable to retrieve information on demand or are slow to retrieve it.

Rapid Automatic Naming (RAN) is the ability to quickly name a series of familiar items, such as objects and symbols. RAN is a predictor of reading fluency.

Orthographic Memory is memory for letters, digits, symbols, letter sequences, parts of words, and whole words, especially phonetically irregular words. Orthographic memory is important for spelling and reading fluency.

MPA Version 3.1.0 Report

Examinee: Sample Report **Age:** 12

School: Middle **Grade:** 6th

Examiner: Dr. Milton Dehn **Evaluation Dates:** 01/03/2019

PSW Among Memory Processes

Sample has above average memory processes in LTM Retrieval Fluency and Rapid Automatic Naming. Sample has average memory processes in STM Phonological, STM Visual-Spatial, WM Verbal, WM Visual-Spatial, WM Executive, LTM Verbal Recall, LTM Visual-Spatial Recall, LTM Consolidation, and LTM Storage/Recognition. In contrast Sample has below average memory process in LTM Encoding/Learning and Orthographic Memory.

When a memory process score is significantly different from the predicted score for that process, an intra-individual strength or weakness is indicated. Sample has a significant intra-individual strength in Rapid Automatic Naming. The intra-individual strengths that can be considered an asset include Rapid Automatic Naming. Sample has significant intra-individual weaknesses in LTM Encoding/Learning, LTM Consolidation, and Orthographic Memory. The intra-individual weaknesses that can be considered deficits include LTM Encoding/Learning and Orthographic Memory.

Differences Between Related Memory Processes

The table labeled 'Pairwise Comparisons of Related Memory Processes' identifies memory processes that have weaknesses relative to the specific processes they are paired with. Only closely related processes are included in the table. This table provides in-depth information that should be used for interventions or treatment planning.

PSW Among Areas of Achievement

Sample has no above average academic skills. Sample appears to have average academic skills in Reading Fluency, Reading Comprehension, Mathematics Calculation, Mathematics Problem Solving, Oral Expression, and Listening Comprehension. In contrast Sample has below average academic skills in Basic Reading Skills and Written Expression.

When an achievement score is significantly different from the predicted score for that skill, an intra-individual strength or weakness is indicated. Sample has significant intra-individual strengths in Mathematics Calculation and Mathematics Problem Solving. Sample has a significant intra-individual weakness in Basic Reading Skills. An intra-individual weakness that can be considered a deficit includes Basic Reading Skills.

Examinee: Sample Report **Age:** 12

School: Middle **Grade:** 6th

Examiner: Dr. Milton Dehn **Evaluation Dates:** 01/03/2019

Consistency Between Achievement Scores and Memory Process Scores

When one or more of the memory processes that strongly influence the development of a specific area of achievement are intra-individual weaknesses, the examinee is likely to have a deficiency in that achievement area. The “Consistency Between Achievement Areas and Related Memory Processes” tables compares achievement areas and psychological processes that are highly related. Consistency between an achievement score and a related process score is indicated by a “No” in the “Significant Difference” column..

Consistency between a related memory process score identified as a significant intra-individual weakness and a related area of deficient achievement provides support for a diagnosis of a specific learning disability. A memory process score that is significantly lower than a related area of deficient achievement is also evidence for a specific learning disability. When a process score is significantly higher than a deficient area of achievement, the deficiency in achievement cannot be attributed to a weakness in that particular memory process.

Listed below are those areas of achievement with scores low enough to qualify for a specific learning disability. Along with each eligible area of achievement, related memory processes that have been identified as significant intra-individual weaknesses are listed whenever the pair of scores is consistent (not significantly different from each other). Eligible areas of achievement without any consistent intra-individual processing weaknesses are not listed. The “Consistent Achievement – Memory Process Scores” graph on the next page displays the same consistent pairs along with the scores.

- Basic Reading Skills and LTM Encoding/Learning
- Basic Reading Skills and LTM Consolidation
- Basic Reading Skills and Orthographic Memory
- Written Expression and LTM Consolidation
- Written Expression and LTM Storage/Recognition

MPA Version 3.1.0 Report

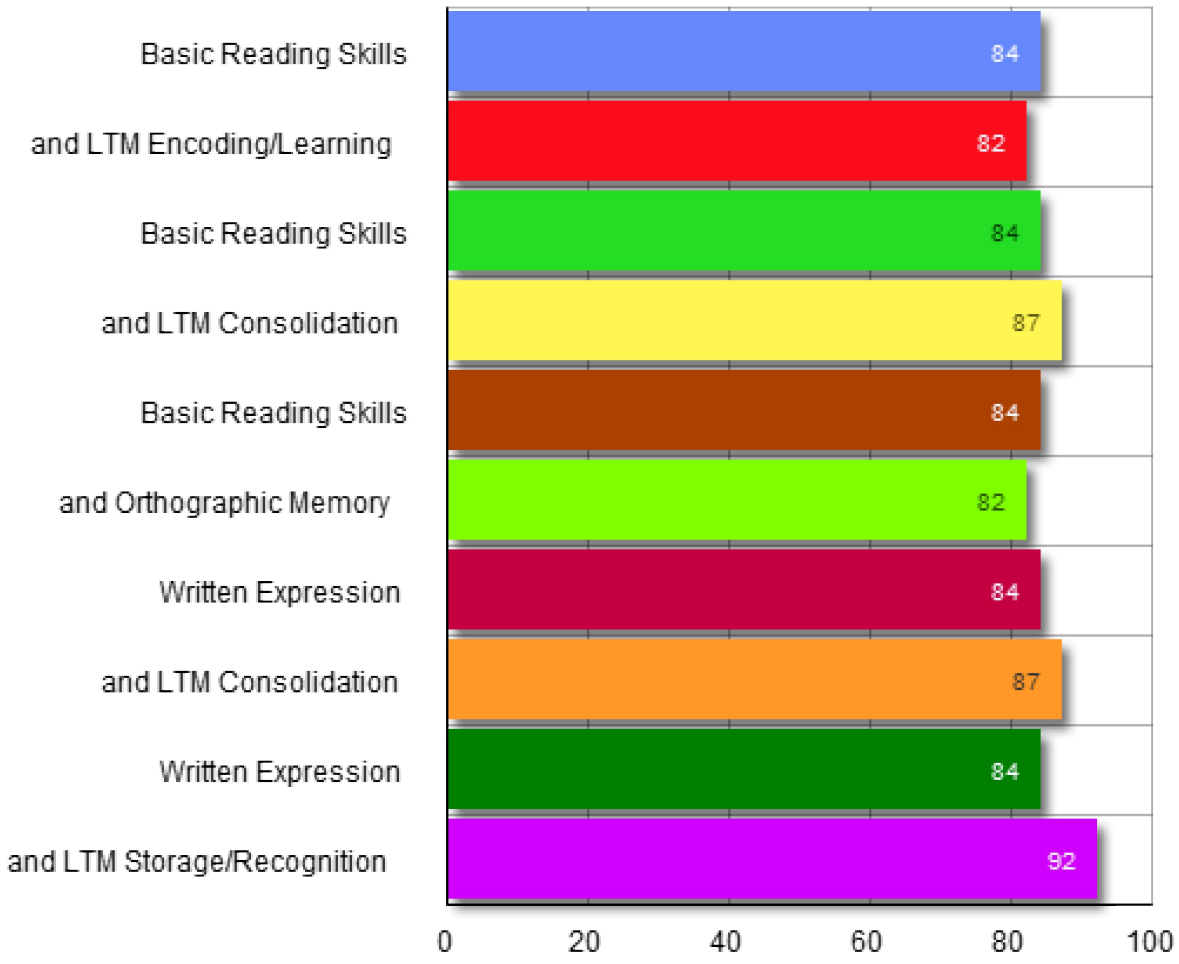
Examinee: Sample Report **Age:** 12

School: Middle **Grade:** 6th

Examiner: Dr. Milton Dehn **Evaluation Dates:** 01/03/2019

Consistent Achievement - Memory Process Scores

Achievement Scores Below 85

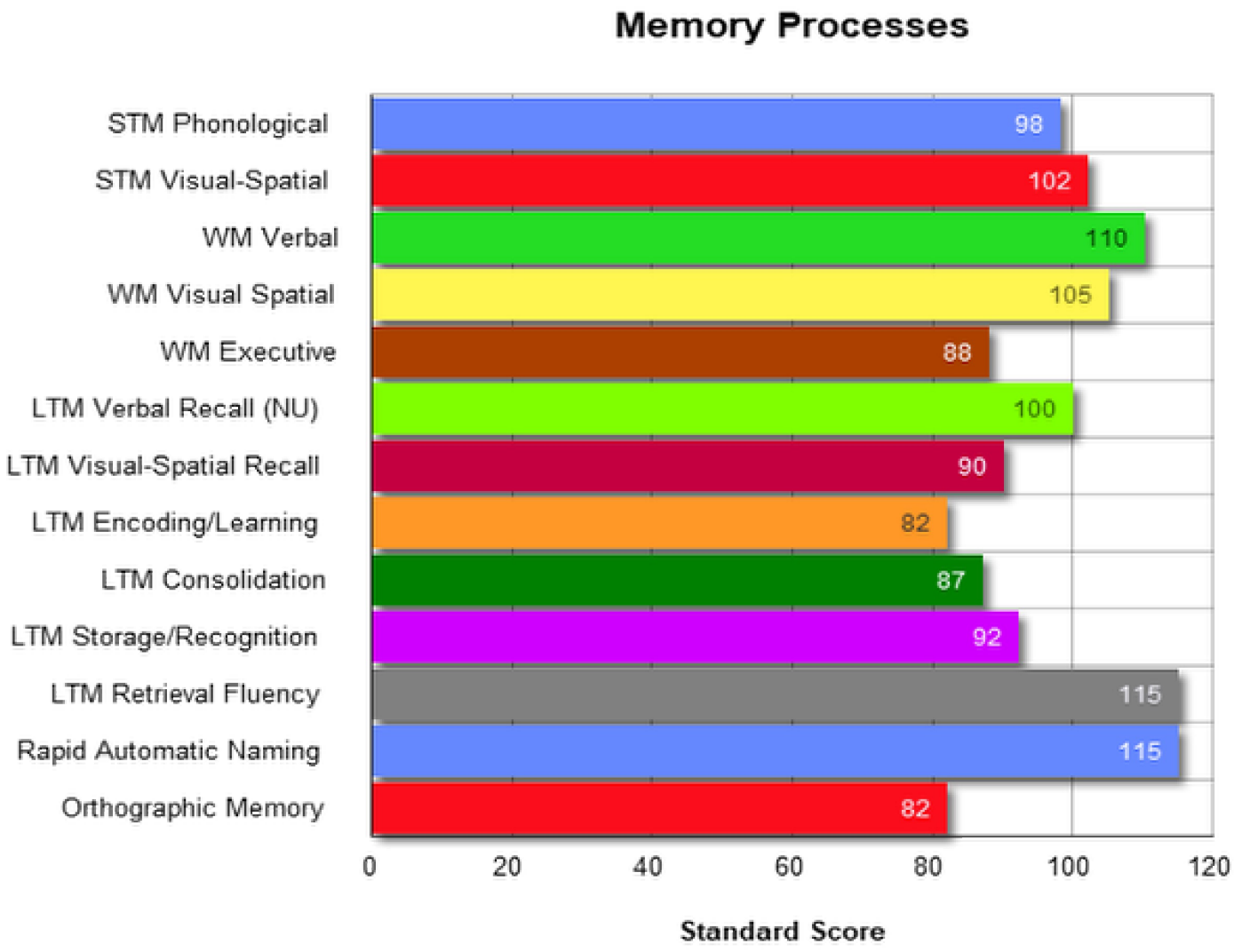


MPA Version 3.1.0 Report

Examinee: Sample Report **Age:** 12

School: Middle **Grade:** 6th

Examiner: Dr. Milton Dehn **Evaluation Dates:** 01/03/2019



MPA Version 3.1.0 Report

Examinee: Sample Report **Age:** 12

School: Middle **Grade:** 6th

Examiner: Dr. Milton Dehn **Evaluation Dates:** 01/03/2019

Memory Processing Strengths and Weaknesses Summary

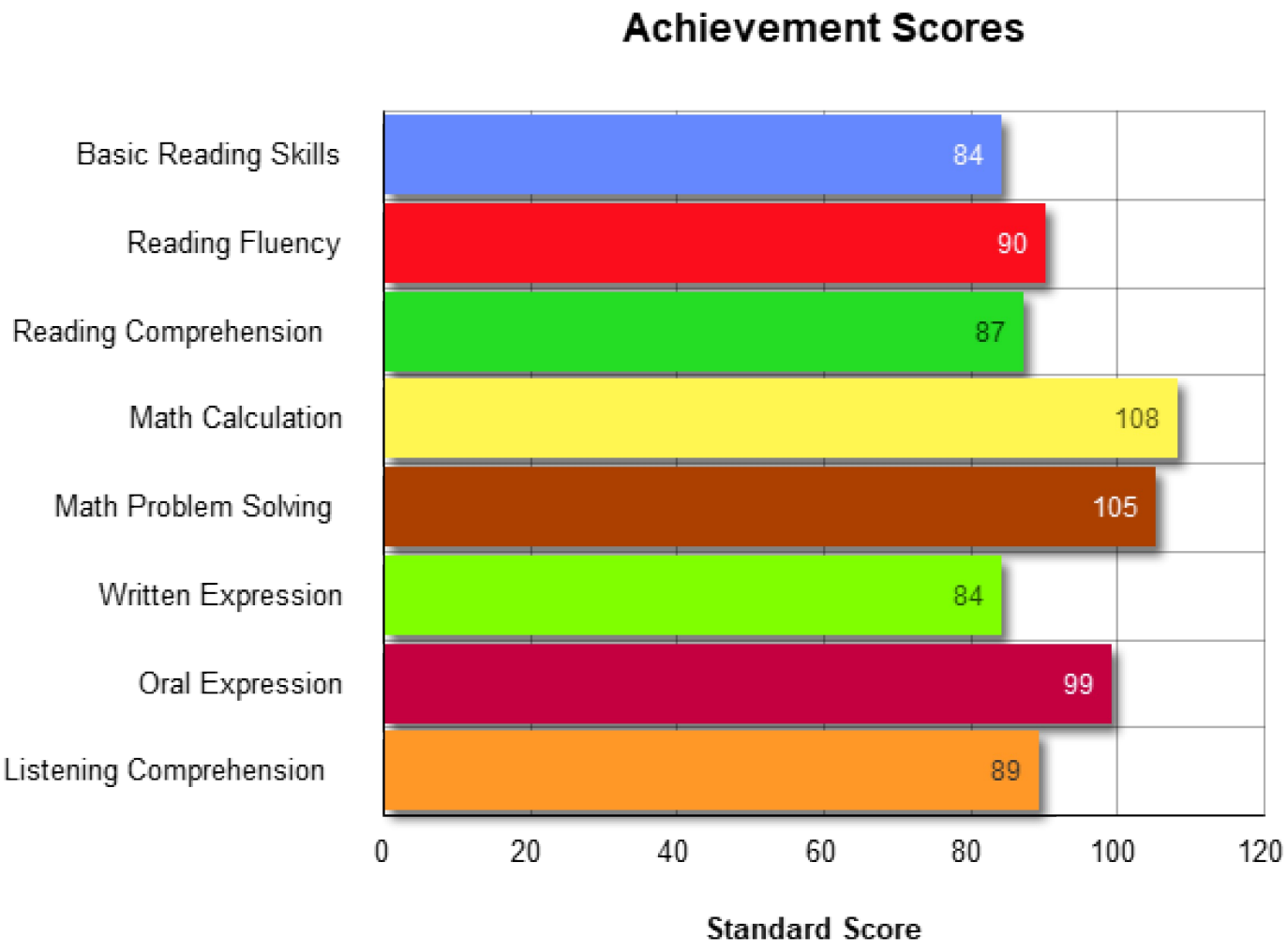
Psychological Process	Process Score	Predicted Score	Difference	Intra-Individual S or W	Normative S or W	Asset or Deficit
STM Phonological	98	99	-1	-	-	-
STM Visual-Spatial	102	99	3	-	-	-
WM Verbal	110	99	11	-	-	-
WM Visual-Spatial	105	99	6	-	-	-
WM Executive	88	99	-11	-	-	-
LTM Verbal Recall	100	99	1	-	-	-
LTM Visual-Spatial Recall	90	99	-9	-	-	-
LTM Encoding/Learning	82	99	-17	W	W	D
LTM Consolidation	87	99	-12	W	-	-
LTM Storage/Recognition	92	99	-7	-	-	-
LTM Retrieval Fluency	115	99	16	-	S	-
Rapid Automatic Naming	115	99	16	S	S	A
Orthographic Memory	82	99	-17	W	W	D

MPA Version 3.1.0 Report

Examinee: Sample Report **Age:** 12

School: Middle **Grade:** 6th

Examiner: Dr. Milton Dehn **Evaluation Dates:** 01/03/2019



Examinee: Sample Report **Age:** 12

School: Middle **Grade:** 6th

Examiner: Dr. Milton Dehn **Evaluation Dates:** 01/03/2019

Achievement Strengths and Weaknesses Summary

Achievement	Achievement Score	Predicted Score	Difference	Intra-Individual S or W	Normative S or W	Asset or Deficit
Basic Reading Skills	84	95	-11	W	W	D
Reading Fluency	90	94	-4	-	-	-
Reading Comprehension	87	94	-7	-	-	-
Mathematics Calculation	108	92	16	S	-	-
Mathematics Problem Solving	105	93	12	S	-	-
Written Expression	84	95	-11	-	W	-
Oral Expression	99	93	6	-	-	-
Listening Comprehension	89	94	-5	-	-	-

MPA Version 3.1.0 Report

Examinee: Sample Report **Age:** 12

School: Middle **Grade:** 6th

Examiner: Dr. Milton Dehn **Evaluation Dates:** 01/03/2019

Results based on critical values for the .05 level of significance

Memory Process Composites/Subtests

STM Phonological	Obtained Scores	SS	Proc. Score	Pred. Score	Dif.	Intra-Ind. S/W	Norm. S/W	Asset /Deficit
NEPSY®-II Repetition of Nonsense Words Total Score	8	90	98	99	-1	-	-	-
WISC®-V Digit Span Forward	11	105						

STM Visual-Spatial	Obtained Scores	SS	Proc. Score	Pred. Score	Dif.	Intra-Ind. S/W	Norm. S/W	Asset /Deficit
WISC®-V Picture Span	12	110	102	99	3	-	-	-
WRAML2 Design Memory	9	95						

WM Verbal	Obtained Scores	SS	Proc. Score	Pred. Score	Dif.	Intra-Ind. S/W	Norm. S/W	Asset /Deficit
NEPSY®-II Sentence Repetition Total Score	11	105	110	99	11	-	-	-
NEPSY®-II Narrative Memory Free Recall Total Score	13	115						

WM Visual-Spatial	Obtained Scores	SS	Proc. Score	Pred. Score	Dif.	Intra-Ind. S/W	Norm. S/W	Asset /Deficit
WRAML2 Picture Memory	11	105	105	99	6	-	-	-

WM Executive	Obtained Scores	SS	Proc. Score	Pred. Score	Dif.	Intra-Ind. S/W	Norm. S/W	Asset /Deficit
WISC®-V Digit Span Backward	7	85	88	99	-11	-	-	-
WRAML2 Symbolic Working Memory	8	90						

MPA Version 3.1.0 Report

Examinee: Sample Report **Age:** 12

School: Middle **Grade:** 6th

Examiner: Dr. Milton Dehn **Evaluation Dates:** 01/03/2019

Results based on critical values for the .05 level of significance

Memory Process Composites/Subtests

LTM Verbal Recall	Obtained Scores	SS		Proc. Score	Pred. Score	Dif.	Intra-Ind. S/W	Norm. S/W	Asset /Deficit
WRAML2 Story Memory Delay Recall	12	110	NU	100	99	1	-	-	-
WRAML2 Verbal Learning Delay Recall	8	90							

LTM Visual-Spatial Recall	Obtained Scores	SS	Proc. Score	Pred. Score	Dif.	Intra-Ind. S/W	Norm. S/W	Asset /Deficit
NEPSY®-II Memory for Designs Delayed Total	8	90	90	99	-9	-	-	-

LTM Encoding/Learning	Obtained Scores	SS	Proc. Score	Pred. Score	Dif.	Intra-Ind. S/W	Norm. S/W	Asset /Deficit
WISC®-V Immediate Symbol Translation	6	80	82	99	-17	W	W	D
NEPSY®-II Memory for Names Total Score	7	85						

LTM Consolidation	Obtained Scores	SS	Proc. Score	Pred. Score	Dif.	Intra-Ind. S/W	Norm. S/W	Asset /Deficit
WJ III Visual-Auditory Learning Delayed (more than 24 hours)	87	87	87	99	-12	W	-	-

MPA Version 3.1.0 Report

Examinee: Sample Report **Age:** 12

School: Middle **Grade:** 6th

Examiner: Dr. Milton Dehn **Evaluation Dates:** 01/03/2019

Results based on critical values for the .05 level of significance

Memory Process Composites/Subtests

LTM Storage/Recognition	Obtained Scores	SS	Proc. Score	Pred. Score	Dif.	Intra-Ind. S/W	Norm. S/W	Asset /Deficit
WRAML2 VERBAL RECOGNITION	94	94	92	99	-7	-	-	-
WRAML2 VISUAL RECOGNITION	90	90						

LTM Retrieval Fluency	Obtained Scores	SS	Proc. Score	Pred. Score	Dif.	Intra-Ind. S/W	Norm. S/W	Asset /Deficit
D-KEFS Verbal Fluency	13	115	115	99	16	-	S	-

Rapid Automatic Naming	Obtained Scores	SS	Proc. Score	Pred. Score	Dif.	Intra-Ind. S/W	Norm. S/W	Asset /Deficit
WISC®-V NAMING SPEED INDEX	115	115	115	99	16	S	S	A

Orthographic Memory	Obtained Scores	SS	Proc. Score	Pred. Score	Dif.	Intra-Ind. S/W	Norm. S/W	Asset /Deficit
TOC ORTHOGRAPHIC PROCESSING ABILITY	82	82	82	99	-17	W	W	D

NU denotes composite or subtest scores that are not unitary. Cautious interpretation or further assessment is recommended for the memory process of LTM Verbal Recall.

MPA Version 3.1.0 Report

Examinee: Sample Report **Age:** 12

School: Middle **Grade:** 6th

Examiner: Dr. Milton Dehn **Evaluation Dates:** 01/03/2019

Results based on critical values for the .05 level of significance

Achievement Composites/Subtests

Basic Reading Skills	Obtained Scores	SS	Ach. Score	Pred. Score	Dif.	Intra-Ind. S/W	Norm. S/W	Asset /Deficit
WJ IV™ ACH BASIC READING SKILLS	84	84	84	95	-11	W	W	D

Reading Fluency	Obtained Scores	SS	Ach. Score	Pred. Score	Dif.	Intra-Ind. S/W	Norm. S/W	Asset /Deficit
WJ IV™ ACH READING FLUENCY	90	90	90	94	-4	-	-	-

Reading Comprehension	Obtained Scores	SS	Ach. Score	Pred. Score	Dif.	Intra-Ind. S/W	Norm. S/W	Asset /Deficit
WJ IV™ ACH READING COMPREHENSION EXT.	87	87	87	94	-7	-	-	-

Mathematics Calculation	Obtained Scores	SS	Ach. Score	Pred. Score	Dif.	Intra-Ind. S/W	Norm. S/W	Asset /Deficit
WJ III™ ACH NU MATH CALCULATION SKILLS	108	108	108	92	16	S	-	-

MPA Version 3.1.0 Report

Examinee: Sample Report **Age:** 12

School: Middle **Grade:** 6th

Examiner: Dr. Milton Dehn **Evaluation Dates:** 01/03/2019

Results based on critical values for the .05 level of significance

Achievement Composites/Subtests

Mathematics Problem Solving	Obtained Scores	SS	Ach. Score	Pred. Score	Dif.	Intra-Ind. S/W	Norm. S/W	Asset /Deficit
WJ IV™ ACH MATH PROBLEM SOLVING	105	105	105	93	12	S	-	-

Written Expression	Obtained Scores	SS	Ach. Score	Pred. Score	Dif.	Intra-Ind. S/W	Norm. S/W	Asset /Deficit
WJ IV™ ACH WRITTEN EXPRESSION	84	84	84	95	-11	-	W	-

Oral Expression	Obtained Scores	SS	Ach. Score	Pred. Score	Dif.	Intra-Ind. S/W	Norm. S/W	Asset /Deficit
WJ IV™ ORAL EXPRESSION	99	99	99	93	6	-	-	-

Listening Comprehension	Obtained Scores	SS	Ach. Score	Pred. Score	Dif.	Intra-Ind. S/W	Norm. S/W	Asset /Deficit
WJ III™ ACH NU LISTENING COMPREHENSION	89	89	89	94	-5	-	-	-

MPA Version 3.1.0 Report

Examinee: Sample Report **Age:** 12

School: Middle **Grade:** 6th

Examiner: Dr. Milton Dehn **Evaluation Dates:** 01/03/2019

Pairwise Comparison of Related Processes

	Proc. 1 Score	Proc. 2 Score	Dif.	Critical Value (.01 Level)	Sign. Dif.
STM Phonological vs STM Visual-Spatial	98	102	4	22.23	No
STM Phonological vs WM Verbal	98	110	12	25.38	No
STM Phonological vs WM Executive	98	88	10	23.22	No
STM Phonological vs LTM Verbal Recall	98	100	2	22.23	No
STM Phonological vs LTM Encoding/Learning	98	82	16	22.9	No
STM Phonological vs Orthographic Memory	98	82	16	17.73	No
STM Visual-Spatial vs WM Visual-Spatial	102	105	3	21.55	No
STM Visual-Spatial vs WM Executive	102	88	14	21.55	No
STM Visual-Spatial vs LTM Visual-Spatial Recall	102	90	12	25.96	No
STM Visual-Spatial vs LTM Encoding/Learning	102	82	20	21.2	No
STM Visual-Spatial vs Orthographic Memory	102	82	20	15.48	Yes
WM Verbal vs WM Visual-Spatial	110	105	5	24.78	No
WM Verbal vs WM Executive	110	88	22	24.78	No
WM Verbal vs LTM Verbal Recall	110	100	10	23.86	No
WM Verbal vs LTM Encoding/Learning	110	82	28	24.48	Yes
WM Verbal vs Orthographic Memory	110	82	28	19.73	Yes
WM Visual-Spatial vs WM Executive	105	88	17	22.57	No
WM Visual-Spatial vs LTM Visual-Spatial Recall	105	90	15	26.81	No
WM Visual-Spatial vs LTM Encoding/Learning	105	82	23	22.23	Yes
WM Visual-Spatial vs Orthographic Memory	105	82	23	16.87	No
WM Executive vs LTM Verbal Recall	88	100	12	21.55	No
WM Executive vs LTM Visual-Spatial Recall	88	90	2	26.81	No
WM Executive vs LTM Encoding/Learning	88	82	6	22.23	No
WM Executive vs Orthographic Memory	88	82	6	16.87	No

MPA Version 3.1.0 Report

Examinee: Sample Report **Age:** 12

School: Middle **Grade:** 6th

Examiner: Dr. Milton Dehn **Evaluation Dates:** 01/03/2019

Pairwise Comparison of Related Processes

	Proc. 1 Score	Proc. 2 Score	Dif.	Critical Value (.01 Level)	Sign. Dif.
LTM Verbal Recall vs LTM Visual-Spatial Recall	100	90	10	25.96	No
LTM Verbal Recall vs LTM Encoding/Learning	100	82	18	21.2	No
LTM Verbal Recall vs LTM Consolidation	100	87	13	17.31	No
LTM Verbal Recall vs LTM Storage/Recognition	100	92	8	25.67	No
LTM Verbal Recall vs LTM Retrieval Fluency	100	115	15	26.81	No
LTM Verbal Recall vs Rapid Automatic Naming	100	115	15	15.48	No
LTM Verbal Recall vs Orthographic Memory	100	82	18	15.48	Yes
LTM Visual-Spatial Recall vs LTM Encoding/Learning	90	82	8	26.53	No
LTM Visual-Spatial Recall vs LTM Consolidation	90	87	3	23.54	No
LTM Visual-Spatial Recall vs LTM Storage/Recognition	90	92	2	30.23	No
LTM Visual-Spatial Recall vs LTM Retrieval Fluency	90	115	25	31.2	No
LTM Visual-Spatial Recall vs Rapid Automatic Naming	90	115	25	22.23	Yes
LTM Visual-Spatial Recall vs Orthographic Memory	90	82	8	22.23	No
LTM Encoding/Learning vs LTM Retrieval Fluency	82	115	33	27.37	Yes
LTM Encoding/Learning vs Orthographic Memory	82	82	0	16.42	No
LTM Consolidation vs LTM Storage/Recognition	87	92	5	23.22	No
LTM Consolidation vs LTM Retrieval Fluency	87	115	28	24.48	Yes
LTM Consolidation vs Rapid Automatic Naming	87	115	28	10.95	Yes
LTM Storage/Recognition vs LTM Retrieval Fluency	92	115	23	30.96	No
LTM Storage/Recognition vs Rapid Automatic Naming	92	115	23	21.89	Yes
LTM Storage/Recognition vs Orthographic Memory	92	82	10	21.89	No
LTM Retrieval Fluency vs Rapid Automatic Naming	115	115	0	23.22	No
LTM Retrieval Fluency vs Orthographic Memory	115	82	33	23.22	Yes
Rapid Automatic Naming vs Orthographic Memory	115	82	33	7.74	Yes

MPA Version 3.1.0 Report

Examinee: Sample Report **Age:** 12

School: Middle **Grade:** 6th

Examiner: Dr. Milton Dehn **Evaluation Dates:** 01/03/2019

Consistency Between Achievement Areas and Related Memory Processes Table

Significant .05 Pairwise Comparisons

	Ach. Score	Proc. Score	Dif.	Critical Value (.05 Level)	Sign. Dif.
Basic Reading Skills and STM Phonological	84	98	14	14.4	No
Basic Reading Skills and STM Visual-Spatial	84	102	18	12.82	Yes
Basic Reading Skills and WM Verbal	84	110	26	15.83	Yes
Basic Reading Skills and WM Visual-Spatial	84	105	21	13.79	Yes
Basic Reading Skills and WM Executive	84	88	4	13.79	No
Basic Reading Skills and LTM Verbal Recall	84	100	16	12.82	Yes
Basic Reading Skills and LTM Visual-Spatial Recall	84	90	6	17.64	No
Basic Reading Skills and LTM Encoding/Learning	84	82	2	13.47	No
Basic Reading Skills and LTM Consolidation	84	87	3	9.75	No
Basic Reading Skills and LTM Storage/Recognition	84	92	8	17.39	No
Basic Reading Skills and LTM Retrieval Fluency	84	115	31	18.36	Yes
Basic Reading Skills and RAN	84	115	31	7.78	Yes
Basic Reading Skills and Orthographic Memory	84	82	2	7.78	No
Reading Fluency and WM Verbal	90	110	20	15.56	Yes
Reading Fluency and WM Executive	90	88	2	13.47	No
Reading Fluency and LTM Verbal Recall	90	100	10	12.47	No
Reading Fluency and LTM Visual-Spatial Recall	90	90	0	17.39	No
Reading Fluency and LTM Storage/Recognition	90	92	2	17.14	No
Reading Fluency and LTM Retrieval Fluency	90	115	25	18.12	Yes
Reading Fluency and RAN	90	115	25	7.2	Yes
Reading Fluency and Orthographic Memory	90	82	8	7.2	Yes
Reading Comprehension and WM Verbal	87	110	23	15.56	Yes
Reading Comprehension and WM Executive	87	88	1	13.47	No
Reading Comprehension and LTM Verbal Recall	87	100	13	12.47	Yes
Reading Comprehension and LTM Visual-Spatial Recall	87	90	3	17.39	No

MPA Version 3.1.0 Report

Examinee: Sample Report **Age:** 12

School: Middle **Grade:** 6th

Examiner: Dr. Milton Dehn **Evaluation Dates:** 01/03/2019

Consistency Between Achievement Areas and Related Memory Processes Table

Significant .05 Pairwise Comparisons

	Ach. Score	Proc. Score	Dif.	Critical Value (.05 Level)	Sign. Dif.
Math Calculation and STM Phonological	108	98	10	15.56	No
Mathematics Calculation and STM Visual-Spatial	108	102	6	14.1	No
Mathematics Calculation and WM Verbal	108	110	2	16.89	No
Mathematics Calculation and WM Visual-Spatial	108	105	3	14.99	No
Mathematics Calculation and WM Executive	108	88	20	14.99	Yes
Mathematics Calculation and LTM Verbal Recall	108	100	8	14.1	No
Mathematics Calculation and LTM Visual-Spatial Recall	108	90	18	18.59	No
Mathematics Calculation and LTM Encoding/Learning	108	82	26	14.7	Yes
Mathematics Calculation and LTM Consolidation	108	87	21	11.39	Yes
Mathematics Calculation and LTM Storage/Recognition	108	92	16	18.36	No
Mathematics Calculation and LTM Retrieval Fluency	108	115	7	19.28	No
Mathematics Calculation and Orthographic Memory	108	82	26	9.75	Yes
Mathematics Problem Solving and STM Phonological	105	98	7	14.4	No
Mathematics Problem Solving and STM Visual-Spatial	105	102	3	12.82	No
Mathematics Problem Solving and WM Verbal	105	110	5	15.83	No
Mathematics Problem Solving and WM Visual-Spatial	105	105	0	13.79	No
Mathematics Problem Solving and WM Executive	105	88	17	13.79	Yes
Mathematics Problem Solving and LTM Verbal Recall	105	100	5	12.82	No
Mathematics Problem Solving and WM Visual-Spatial	105	90	15	17.64	No
Mathematics Problem Solving and LTM Storage/Recognition	105	92	13	17.39	No
Mathematics Problem Solving and LTM Retrieval Fluency	105	115	10	18.36	No

MPA Version 3.1.0 Report

Examinee: Sample Report **Age:** 12

School: Middle **Grade:** 6th

Examiner: Dr. Milton Dehn **Evaluation Dates:** 01/03/2019

Consistency Between Achievement Areas and Related Memory Processes Table

Significant .05 Pairwise Comparisons

	Ach. Score	Proc. Score	Dif.	Critical Value (.05 Level)	Sign. Dif.
Written Expression and STM Phonological	84	98	14	15.28	No
Written Expression and STM Visual-Spatial	84	102	18	13.79	Yes
Written Expression and WM Verbal	84	110	26	16.63	Yes
Written Expression and WM Visual-Spatial	84	105	21	14.7	Yes
Written Expression and WM Executive	84	88	4	14.7	No
Written Expression and LTM Verbal Recall	84	100	16	13.79	Yes
Written Expression and LTM Encoding/Learning	84	82	2	14.4	No
Written Expression and LTM Consolidation	84	87	3	11	No
Written Expression and LTM Storage/Recognition	84	92	8	18.12	No
Written Expression and LTM Retrieval Fluency	84	115	31	19.05	Yes
Written Expression and Orthographic Memory	84	82	2	9.3	No
Oral Expression and STM Phonological	99	98	1	16.1	No
Oral Expression and WM Verbal	99	110	11	17.39	No
Oral Expression and LTM Verbal Recall	99	100	1	14.7	No
Oral Expression and LTM Encoding/Learning	99	82	17	15.28	Yes
Oral Expression and LTM Consolidation	99	87	12	12.12	No
Oral Expression and LTM Retrieval Fluency	99	115	16	19.72	No
Listening Comprehension and STM Phonological	89	98	9	16.1	No
Listening Comprehension and LTM Verbal Recall	89	100	11	14.7	No
Listening Comprehension and LTM Storage/Recognition	89	92	3	18.83	No

Recommendations for Memory Processes Weaknesses

Recommendations are provided for each memory process that was identified as a significant intra-individual weakness.

Encoding/Learning

- Minimize distractions when learning and memorizing is occurring.
- Take frequent breaks when learning and memorizing is occurring.
- The individual should practice dual encoding: visualizing verbal information and verbalizing visual-spatial information.
- Teach the examinee about how encoding works and inform the examinee of his/her long-term memory strengths and weaknesses.
- Teach the individual about how to maintain a healthy hippocampus, such as avoiding stress.
- Encourage the examinee to think about how the new information relates to his/her prior knowledge.
- Encourage the examinee to think about how the new information is personally relevant.
- Teach the examinee verbal mnemonics, such as creating acronyms, and visual-spatial mnemonics, such as loci.
- Teach the examinee to use rehearsal when memorizing.

Consolidation

- Educate the individual about the importance of getting enough sleep.
- The individual should take frequent breaks when trying to memorize material.
- Information that is forgotten overnight or over a period of days should be taught and reviewed again.
- The examinee will need to review material repeatedly over a period of days and weeks.
- When teaching the examinee, information should be presented both orally and visually.
- The examinee should practice new skills until they are mastered.

Orthographic Memory

- Practice letters and numbers until the examinee has mastered them.
- The examinee should complete a phonemic awareness training curriculum.
- Explicitly teach the examinee phonics rules.
- Review and practice basic sight words with the examinee.
- Encourage the examinee to try to recognize basic words at a glance or as a whole instead of trying to sound out words that should be recognizable.
- Practice segmenting printed words by syllables and phonemes.
- Teach the examinee morphology by studying prefixes, roots, and suffixes and the meaning of each.