Interpretative report

Assessment report of the memory profile

nesplora Memory suite

This report is intended to be used by the test administrator as an interpretive aid.

This report should not be used as the sole basis for clinical diagnosis or intervention.

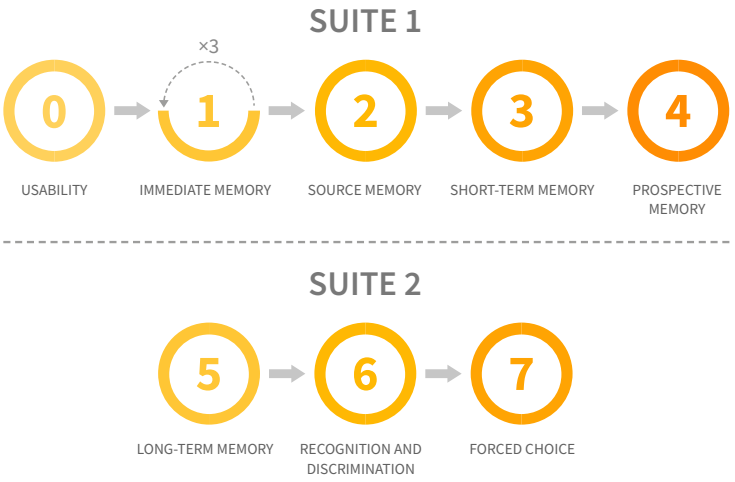
FULL NAME	**MARÍA ANÓNIMA**		
SEX	**FEMALE**		
DATE OF BIRTH	**07/11/1986**		
AGE	**37**		
EXECUTION OF THE TEST	**09/08/2024 06:42**		
DURATION OF THE TEST	**SUITE 1** **0:15:30**	**BREAK** **0:47:12**	**SUITE 2** **0:3:31**
SCALE USED	**27-44 FEMALE**		
PREVIOUS NOTES			
SUBSEQUENT NOTES			

1. Nesplora Suite assesment report

General description

Nesplora Memory Suite is a test that investigates and assesses the different memory components in people over 12 years of age and guides the diagnosis in the neuropsychological field.

The test is divided into two parts: the first part (SUITE1) includes the first 4 tasks, while the second part (SUITE2) consists of 3 tasks and can be administered at the clinician's discretion after a certain time interval.



Below is a summary of the scores obtained in the main components assessed: Immediate Memory, Source Memory, Short-Term Memory, Long-Term Memory, Recognition and Discrimination. Subsequently, a general description of the scores obtained and other qualitative and performance indicators is provided for each index.

The results are presented in graphs with T scores and the corresponding performance classification: 20 to 30 is considered very low in relation to the specific normative reference group, 31 to 40 is low, 41 to 59 is average, 60 to 69 is high and 70 to 80 is very high. In addition, percentile intervals and corresponding raw scores are presented in the tables of the report.

T SCORE RANGE	PERFORMANCE
20-30	VERY LOW
31-40	LOW
41-59	AVERAGE
60-69	HIGH
70-80	VERY HIGH

For a better interpretation of the report, please refer to the Nesplora Suite manual or interpretation guide.

2. General indices

IMMEDIATE MEMORY

It is the immediate retrieval of newly sensory-presented stimuli.

39

SOURCE MEMORY

It is the elaboration of stimuli held in memory.

48

SHORT-TERM MEMORY

It is the retrieval of stimuli or memories in a short period of time without their presentation after a lapse or task no longer than 5 minutes.

46

LONG-TERM MEMORY

It is the retrieval of stimuli or memories in a long period of time without their presentation after a lapse or task of no less than 5 minutes.

38

DISCRIMINABILITY

It is the ability to discern, among the stimuli presented, those demanded by the task.

47

RECOGNITION

It is the ability to identify stimuli that have been presented in the tasks.

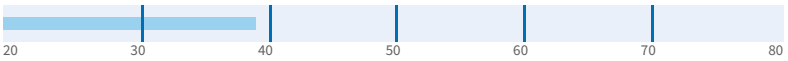
48

Forced choice indicator

María's test performance in the forced choice task appears to be valid and interpretation of the results can be continued. For further information please refer to the test manual.

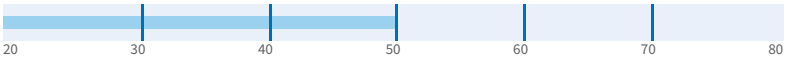
Immediate memory

Total hits



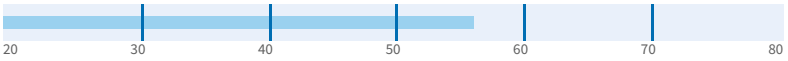
39 T SCORE

Assignment time



50 T SCORE

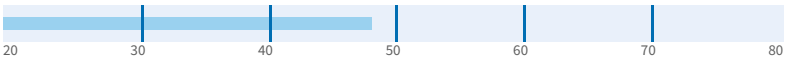
Execution time



56 T SCORE

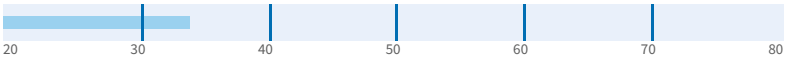
Source memory

Total hits



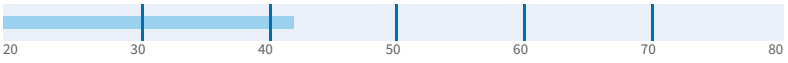
48 T SCORE

Assignment time



34 T SCORE

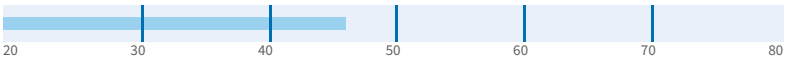
Execution time



42 T SCORE

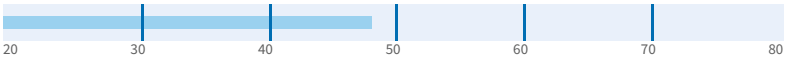
Short-term memory

Total hits



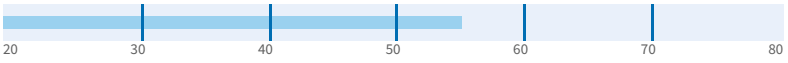
46 T SCORE

Assignment time



48 T SCORE

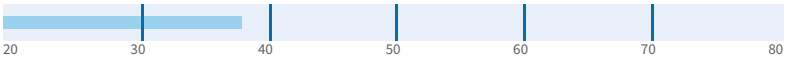
Execution time



55 T SCORE

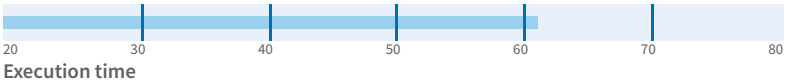
Long-term memory

Total hits



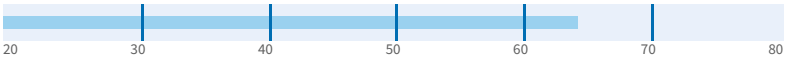
38 T SCORE

Assignment time



61 T SCORE

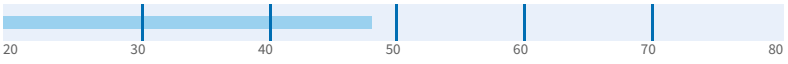
Execution time



64 T SCORE

Recognition

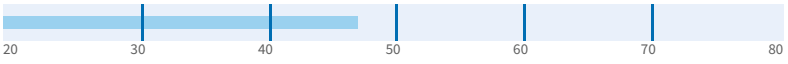
Total hits



48 T SCORE

Discrimination

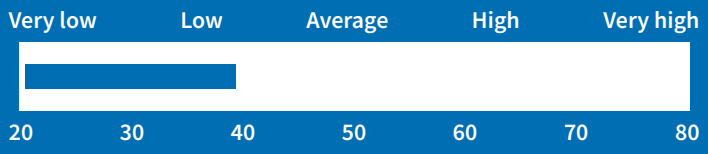
D'prime



47 T SCORE

3. Immediate memory

T SCORE
39



It relates to the functions of perception, attention and encoding, as it is the function of repeating something that has been presented only a few seconds before. Clinically, it indicates whether the input and recording function is intact. It is measured through the first task consisting of 5 different families in 5 orders.

In the immediate memory task, 5 lists of items ('orders') are presented and the examinee is asked to recall their quantity and type and to select them. The task is repeated 3 times to measure very short-term learning and memorisation ability. The score obtained reflects the number of times the items in each list are correctly selected.

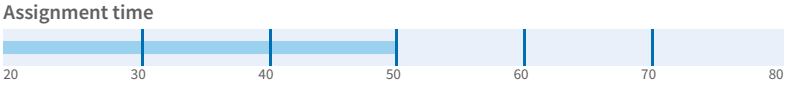
María's immediate memory during the test shows the following score: 39, which corresponds to a **low** performance.

Immediate memory descriptors

Assignment time

It indicates the time it takes María to click on each hit in the same order, measured in seconds of the total hits.

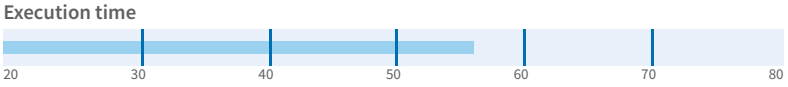
María's assignment time during the test shows the following score: 50, which corresponds to an **average** performance.



Execution time

This is the time taken to complete the entire trial, measured from the time the instruction is given until the order is completed, measured in seconds.

María's execution time during the test shows the following score: 56, which corresponds to an **average** performance.



	Raw	T score	Pc
Total hits	71	39	14
Assignment time (s)	10.3	50	51
Execution time (s)	187.3	56	73

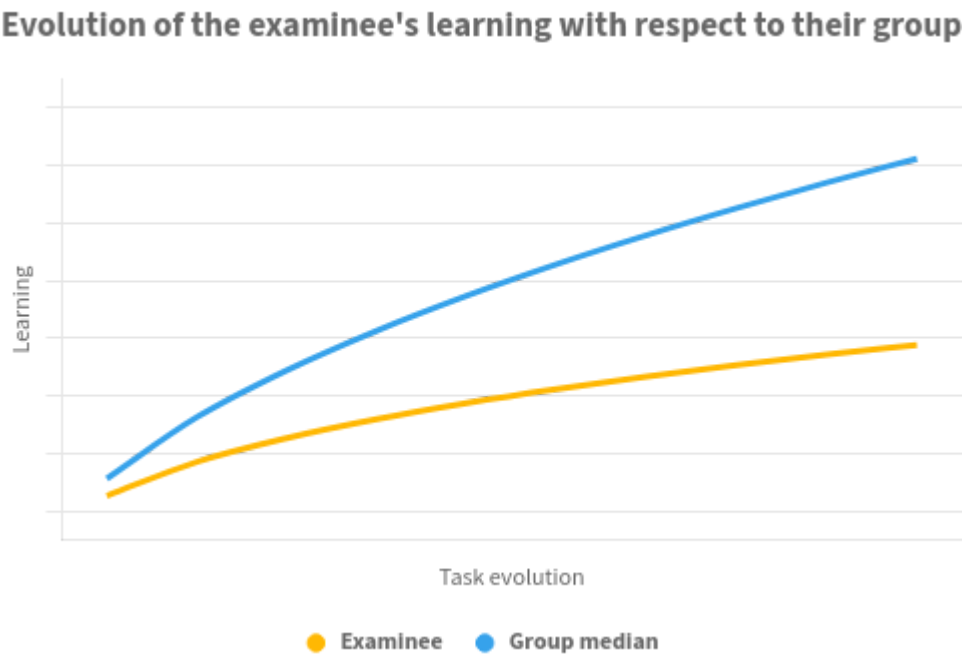
3. Immediate memory

Learning

The immediate memory task consists of the presentation of 5 orders and results from learning and memorising them in three trials. This section studies in detail the results in each trial and graphically represents the learning curve with respect to the median of their normative group.

	Raw	T score	Pc
Total hits			
Trial 1	22	41	19
Trial 2	25	43	24
Trial 3	24	37	11
Assignment time (s)			
Trial 1	6.5	66	95
Trial 2	3.4	74	100
Trial 3	10.3	50	51
Execution time (s)			
Trial 1	83.3	54	67
Trial 2	59.8	52	58
Trial 3	44.2	59	83

This function shows the result of a learning equation for the 3 immediate memory trials. The more upward curve, the more learning; the more downward curve, the more loss of hits. A horizontal one would indicate maintenance across trials. It is important to consider learning, bearing in mind that the immediate memory outcome is a direct consequence of learning.



3. Immediate memory

Primacy and recency effects

Primacy and **recency** effects are cognitive phenomena that occur when people have to remember a series of items and tend to memorise more easily the first items presented (primacy effect) or the last ones (recency effect). This section indicates whether María used these strategies during the immediate memory task.

María tends to remember the first memory representations better than the last ones.

The table shows whether this effect has been obtained for each order per trial and family, or if there is none (blank):

Trial	Order1	Order2	Order3	Order4	Order5
1	Primacy	Primacy	-	-	-
2	Primacy	Primacy	Primacy	-	-
3	-	-	Primacy	-	-

Visual and verbal strategies

These strategies refer to the greater use of visual or verbal memory to perform the task.

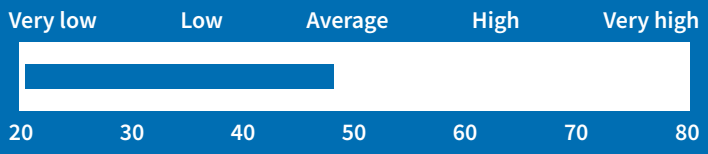
By using a **visual strategy**, María places the order in a visual order. This order can be 'from right to left' or 'from left to right'.

Both are compatible as we use all our functions in pursuit of doing the task to the best of our ability.

	Trial 1	Trial 2	Trial 3
Order 1			
Verbal memory	Yes	Yes	No
Visual memory	No	No	Yes, from right to left
Order 2			
Verbal memory	No	No	No
Visual memory	No	No	No
Order 3			
Verbal memory	Yes	Yes	Yes
Visual memory	Yes, from right to left	Yes, from right to left	Yes, from right to left
Order 4			
Verbal memory	No	No	No
Visual memory	No	No	Yes, from right to left
Order 5			
Verbal memory	No	No	No
Visual memory	No	No	No

4. Source memory

T SCORE
48



Source memory refers to the ability to remember the origin or source of information. It is a component of episodic memory, which refers to the recall of specific events and experiences related to a specific time and place. This aspect of memory is essential for making accurate judgements about the reliability and credibility of information.

In the source memory task, several items are displayed and the examinee must attribute the orders to the customer who requested them.

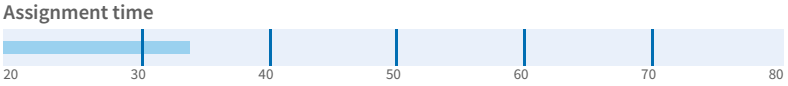
María's source memory during the test shows the following score: 48, which corresponds to an **average** performance.

Source memory descriptors

Assignment time

It indicates the time it takes María to click on each hit in the same order, measured in average seconds of total hits.

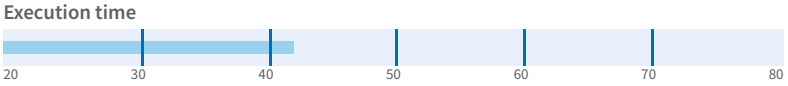
María's assignment time during the test shows the following score: 34, which corresponds to a **low** performance.



Execution time

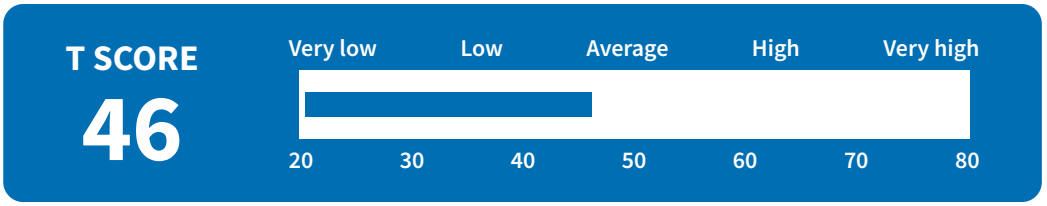
The time taken to complete the entire task, measured from the time the instruction is given until the trial is completed, measured in seconds.

María's execution time during the test shows the following score: 42, which corresponds to an **average** performance.



	Raw	T score	Pc
Total hits	5	48	41
Assignment time (s)	4.5	34	6
Execution time (s)	40.7	42	21

5. Short-term memory



Short-term memory is a type of memory that allows a limited amount of information to be retained and manipulated for short periods of time. This form of memory allows for the active retention of information needed to perform immediate cognitive tasks.

In the short-term memory task, the examinee must recall and select the items of each order required in the three previous tasks.

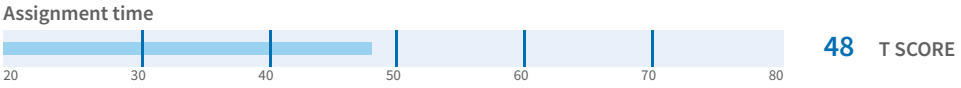
María's short-term memory during the test shows the following score: 46, which corresponds to an **average** performance.

Short-term memory descriptors

Assignment time

It indicates the time it takes María to click on each hit in the same order, measured in seconds of the total hits.

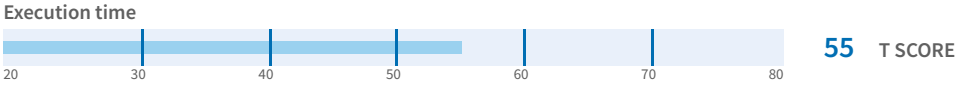
María's assignment time during the test shows the following score: 48, which corresponds to an **average** performance.



Execution time

The time taken to complete the entire task, measured from the time the instruction is given until the trial is completed, measured in seconds.

María's execution time during the test shows the following score: 55, which corresponds to an **average** performance.



	Raw	T score	Pc
Total hits	16	46	34
Assignment time (s)	11.5	48	41
Execution time (s)	71.3	55	69

5. Short-term memory

Primacy and recency effects

María does not show a tendency towards Primacy or Recency.

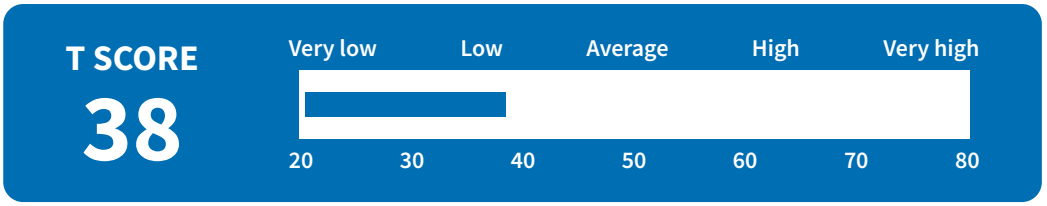
Visual and verbal strategies

These strategies refer to the greater use of visual or verbal memory to perform the task.

Both are compatible as we use all our functions in pursuit of doing the task to the best of our ability.

María does not use verbal or visual memory in any of the compilations of the orders.

6. Long-term memory



Long-term memory is responsible for retaining information over long periods of time, from the duration of hours to a person's entire life. This type of memory is responsible for maintaining and consolidating knowledge, past experiences and skills acquired over time.

In the long-term memory task, after the interruption of the test, the examinee has to recall and select items from each order.

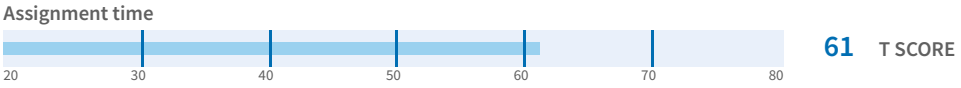
María's long-term memory during the test shows the following score: 38, which corresponds to a **low** performance.

Long-term memory descriptors

Assignment time

It indicates the time it takes María to click on each hit in the same order, measured in average seconds of total hits.

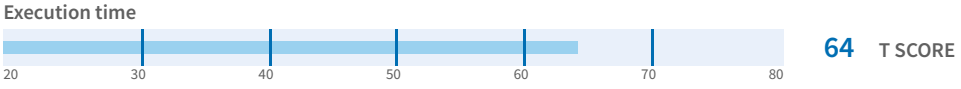
María's assignment time during the test shows the following score: 61, which corresponds to a **high** performance.



Execution time

The time taken to complete the entire task, measured from the time the instruction is given until the trial is completed, measured in seconds.

María's execution time during the test shows the following score: 64, which corresponds to a **high** performance.



	Raw	T score	Pc
Total hits	13	38	12
Assignment time (s)	6.8	61	86
Execution time (s)	60.9	64	92

6. Long-term memory

Primacy and recency effects

María does not show a tendency towards Primacy or Recency.

Visual and verbal strategies

These strategies refer to the greater use of visual or verbal memory to perform the task.

Both are compatible as we use all our functions in pursuit of doing the task to the best of our ability.

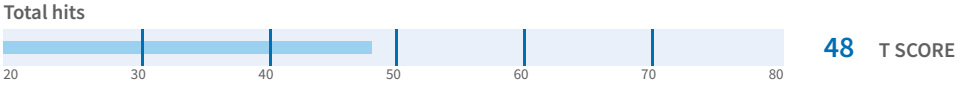
María does not use verbal or visual memory in any of the compilations of the orders.

7. Recognition and discrimination

Recognition and discrimination are two cognitive processes that involve processing information and distinguishing between similar stimuli or situations. Both are related to learning and memory, and require prior experience in order to be performed. However, while recognition refers to the ability to identify or remember something previously encountered, the process of discrimination refers to the ability to distinguish between similar stimuli.

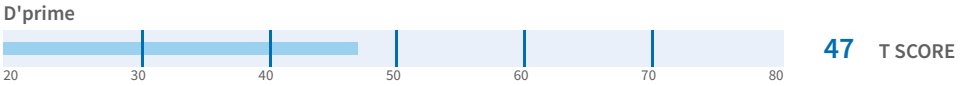
Recognition is measured in total hits.

María's recognition during the test shows the following score: 48, which corresponds to an **average** performance.



Discrimination, on the other hand, is obtained using the d'prime formula (see signal detection theory).

María's discrimination during the test shows the following score: 47, which corresponds to an **average** performance.



	Raw	T score	Pc
Recognition	16	48	43
Discrimination	0.99	47	40

Recognition and discrimination task descriptors

The following are the types of response related to the recognition and discrimination task

- **True positives**: Number of items correctly identified as part of orders.
- **True negatives**: Number of items correctly discarded as not ordered.
- **False positives**: Number of items incorrectly identified as part of orders when they are not.
- **False negatives**: Number of items discarded in error that were part of the orders.

	%
True positives	83.33
True negatives	91.67
False positives	8.33
False negatives	16.67
Correct	88.89

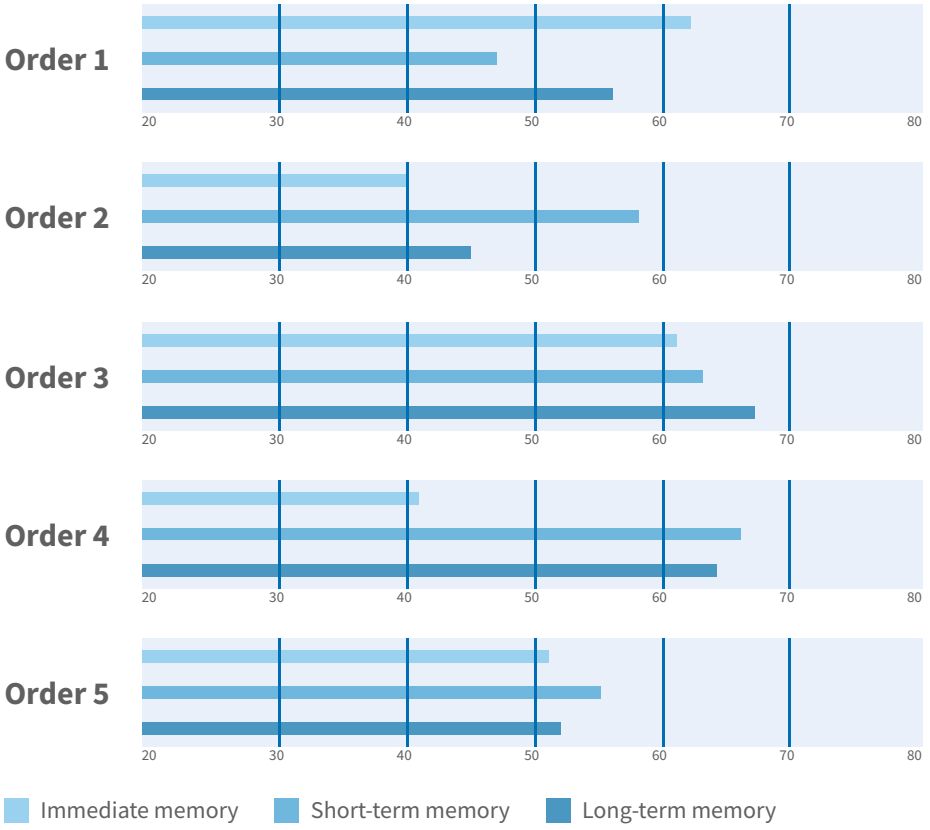
8. Other indicators

Gain/loss

The difference in performance is intrasubject, the variable shows the improvement or deterioration in learning with respect to the test.

Part of the performance depends on the learning given in immediate memory (Task 1) and the consolidation and elaboration in source memory (Task 2), therefore, the increase or decrease of hits will be called, respectively, gain or loss.

In this case, a comparison of the total hit performance on each order in its three trials in immediate memory (task 1), short-term memory (task 3) and long-term memory (task 4) is shown.



The table below shows the number of items gained/lost throughout the tasks.

	Hits Immediate	Gained Immediate-ST	Gained ST-LT	Gain Immediate-ST	Gain ST-LT	Gain Inmediate-LT
Order 1	6	-4	1	62	47	56
Order 2	2	0	0	40	58	45
Order 3	6	-3	-1	61	63	67
Order 4	4	0	-3	41	66	64
Order 5	6	-1	0	51	55	52

8. Other indicators

Prospective memory

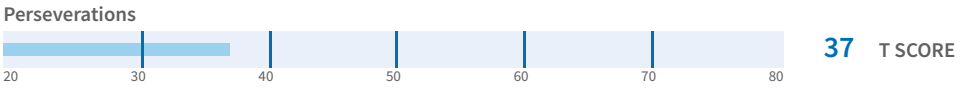
It is the memory that allows planning and remembering tasks to be done in the future. In this case, at the beginning of the test, together with the instructions, the examinee is asked to turn off the light when finished.

María has not turned off the light, this relates to the integration of duties into prospective memory.

Intrusions and perseverations

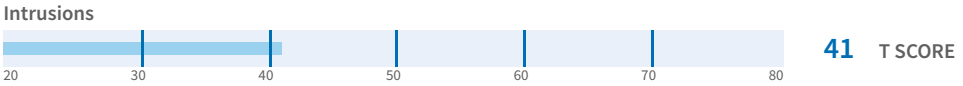
Perseverations are memory insistencies on the same item. They are obtained when an item is clicked on more times than requested.

María's perseverations during the test shows the following score: 37, which corresponds to a **low** performance.



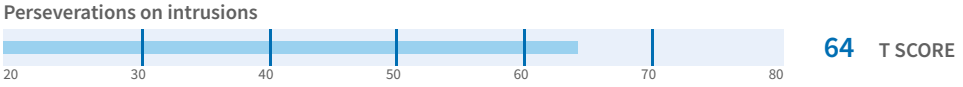
Intrusions are items that are identified as correct, but are not.

María's intrusions during the test shows the following score: 41, which corresponds to an **average** performance.



Perseverations on intrusions are mnesic insistences on an intrusion.

María's perseverations on intrusions during the test shows the following score: 64, which corresponds to a **high** performance.



	Immediate Raw	Short-term Raw	Long-term Raw	Total Raw	Total T score	Total PC
Persev. correct items	1	2	2	5	37	11
Intrusions	7	8	11	26	41	18
Persev. intrusions	0	0	0	0	64	93

8. Other indicators

Errors

This section covers the types of errors in each part of the test and the results of the forced-choice task to examine the validity of the performance.

Errors in immediate memory

Completed orders: María has not left any orders uncompleted.

Clicks in the environment: María has not clicked outside the environment.

Errors in source memory

Completed orders: María has left no orders uncompleted.

Assignments discarded: María has not discarded assignments.

Incorrect assignments: María has made 3 incorrect assignments.

Errors in short-term memory

Completed orders: María has not left any unfinished orders.

Clicks in the environment: María has not clicked outside the items of the environment.

Errors in long-term memory

Completed orders: María has not left any unfinished orders.

Clicks in the environment: María has not clicked outside the items of the environment.

Total execution table

The following tables describe, in order, the examinee's overall performance in the immediate memory, short-term memory and long-term memory tasks. In each table, the order of selection and the number of items selected by the examinee can be seen.

For example, if during order one, the examinee first selects item 1 (T01) four times, the corresponding box will show 4(1).

Direct - Immediate memory

Trial 1

Order	T01	T02	T03	T04	T05	T06	T07	T08	T09	T10	T11	T12	T13
O. 1	4(1)	1(2)	1(3)										
O. 2			1(1)				1(2)				1(3)		
O. 3	2(1)			2(3)		1(4)	1(2)						
O. 4					1(3)	1(1)	1(2)						
O. 5				1(4)	1(3)			1(1)		1(2)			

Trial 2

Order	T01	T02	T03	T04	T05	T06	T07	T08	T09	T10	T11	T12	T13
O. 1	4(1)	1(2)	1(3)	1(4)									
O. 2			1(1)				1(2)				1(3)		
O. 3	2(1)			1(2) | 1(4)		1(5)	1(3)						
O. 4		1(1)			1(3)	1(2)	1(4)						
O. 5	2(2)	1(5)	1(6)		1(3)			1(1)		1(4)			

Trial 3

Order	T01	T02	T03	T04	T05	T06	T07	T08	T09	T10	T11	T12	T13
O. 1	4(1)	1(3)		1(2)									
O. 2							1(1)				1(2)		
O. 3	2(1)			2(2)		1(4)	1(3)						
O. 4		1(3)			1(1)	1(4)	1(2)						
O. 5	2(2)			1(5)	1(3)			2(1)		1(4)			

Direct, Free recall - Short-term memory

Order	T01	T02	T03	T04	T05	T06	T07	T08	T09	T10	T11	T12	T13
O. 1	1(1)		1(4)		1(3)					1(2)			
O. 2	1(3)					1(4)	1(2)				1(1)		
O. 3	1(1) | 1(3)			1(2)									
O. 4	1(2)	1(3)			1(1)	1(5)	1(4)						
O. 5	4(2)			1(4)	1(5)		1(3)	1(1)					

Direct, Free recall - Long-term memory

Order	T01	T02	T03	T04	T05	T06	T07	T08	T09	T10	T11	T12	T13
O. 1	2(2)	1(3)								1(1)			
O. 2	1(1)					1(3)	1(4)				1(2)		
O. 3	2(1)	1(2)			1(3)								
O. 4	1(1)		1(2)	1(4)			1(3)						
O. 5	4(2)	1(4)		1(5)	1(3)			1(1)					