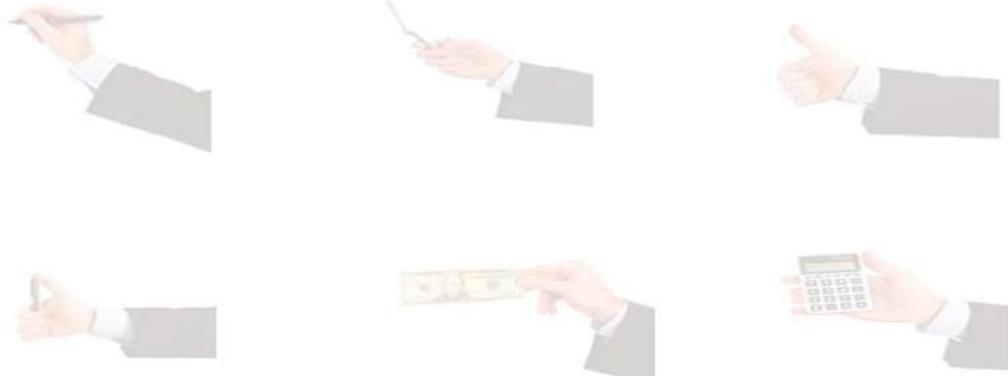**Cognitive Activity (Steps to be performed)**

- Read the activity statement
- The START button is highlighted. Select START to start the activity.

Observe the following images carefully

START FINISH

- Complete the task. In this case, to observe the images. The focus should not appear in the working area but in the START/FINISH button.

Observe the following images carefully

START FINISH

- Set the focus on the FINISH button when done with this observing stage.
- Select FINISH.

Observe the following images carefully

- The next stage of the activity is displayed. A new statement must be read to perform the task.

Select the image that did not show in the former set

- The START button is highlighted. Select START to start the activity.

Select the image that did not show in the former set

START FINISH

- Complete the task. In this case, to select the images that did not show in the previous stage.

Select the image that did not show in the former set

START FINISH

- Set the focus on the targets.

Select the image that did not show in the former set

Select the image that did not show in the former set

- Select the target.
- Set the focus on the FINISH button. Select FINISH to finish this activity.

Select the image that did not show in the former set

START
FINISH

Memory Carousel

This table shows the different alternatives to the main activity that could be carried out from the original Memory Carousel activity.

Activity Name	Activity Description	Main Cognitive Areas	Activity Alternatives
Image recognition	Reference image = Picture (portrait, numerous or mixed), silhouette, sketch, geometric shape, symbol, numbers, letters...). An image is shown, and then dissapears. Next, a set of images are displayed. The user must select the image reference displayed first. The rest of the images could be highly alike or not, depending on the difficulty of the activity. It also could be complicated by adding more elements. - Observe the reference image and then select those images that are exactly the same.	Short-term visual memory. Visual perception.	Images of one element. Images of several elements Images of mixed elements Pair of silhouettes Pair of figures Symbol-signal Pair of colors Pair of numbers Pairs of letters
Rotated figures	Image reference with a certain orientation is displayed first. Then it disappears and several versions of the reference images are show with different orientations. The user must select those with the very same orientation. - Observe the reference image and then select those images with the very same orientation.	Short-term visual memory. Visual Perception.	
Next element in a sequence	First, a sequence of numbers, characters, symbols or figures is displayed. Then, several next elements candidates are shown. The user must select the actual next element. - Observe the sequence and select the next element.	Work memory. Thinking process: Reasoning.	Sequence of figures. Sequence of numbers. Sequence of letters. Sequence of words.

Tips/Description and solution	Some tips, facts, descriptions and features are shown regarding a certain item (place, object, person, scenario or jobs). Then some options are displayed. The user must select the option that matches the statements. - Read the next statements carefully and select the option that fits them.	Work memory. Thinking process: Reasoning.	Mixed statements.
Outsider element	Several related terms are shown first (images or words). Next, the user must select the outsider element. - Observe the next items and then select the item that is not related to the previous terms.	Work memory. Thinking process: Classification.	Image terms with an image outsider. Word terms with a word outsider. Image terms with a word outsider. Word terms with an image outsider.
Correct element	Several related terms are shown (images or words). Next, the user must select the element that is still related to those displayed first. - Observe the next items and then select the item that is related to the previous terms.	Work memory. Thinking process: Classification.	Image terms with an image solution. Word terms with a word solution. Image terms with a word solution. Word terms with an image solution .
Text – True/False	A brief reference text is displayed. Then, several statements are show related to them. The user must select those statements that are true. Read the text carefully and then select those statements that are true (or false).	Work memory. Language: understanding.	Select the statements that are true. Select the statements that are false.

Related elements	A word or image is displayed first. Then, the user must associate this concept to another word or image. - Observe the next item and select the related element.	Associative short-term memory.	Image reference with an image solution. word reference with a word solution. Image reference with a word solution. Word reference with an image solution.
True data	First, an image is displayed alongside some facts about it. Then, some statements are shown. The user must select those statements that are true. - Remember the facts and the image, and then select those statements that are correct.	Associative short-term memory.	
Clocks	Some timestamp is displayed in alphanumerical format. Then, the user must select those figures of clocks that match the reference timestamp. -or- Two figures of clocks are displayed. Then, the user must select those figures of clocks which have their time set between the two former clocks.	Short-term memory. Work memory. Thinking process: Reasoning. Temporal understanding.	Select clock that matches the timestamp. Select clocks which have their time set between the two reference clocks.
Schedule	A timetable is displayed. The user must select the correct facts about the schedule. - Observe the timetable and select those statements that are correct.	Work memory. Thinking process: Reasoning.	Tell if a certain time span is available or busy.
Social reasoning	A problem is outlined and then some outcomes are shown. The user must select the most probable outcome.	Work memory. Thinking process: Reasoning.	

Puzzle

In this activity, there is displayed a reference image alongside disordered pieces of the same image. The user must place those pieces in the correct order in order to obtain the reference image.

The pieces are not rotated but in the correct orientation.

To improve the activity, the reference model could be a picture (portrait, numerous or mixed), a silhouette, a sketch, a geometric shape or a symbol.

Also, the content must reflect the cognitive areas to work with.

The difficulty of this activity could be increased by splitting the reference image in more pieces.

Activity Name	Activity Description	Main Cognitive Areas	Activity Alternatives
Puzzle	- Arrange the following pieces in the correct order	Visual perception. Orientation: Spatial. Praxis: Construction Thinking process: Reasoning.	Images of one element. Images of several elements Images of mixed elements Silhouette Sketch Figures Symbols Colors Numbers Letters

Fill the Gap

In this activity, an image with a missing section is displayed. Also, there are two other images which only one fits the missing section in the reference image.

To improve the activity, the reference model could be a picture (portrait, numerous or mixed), a silhouette, a sketch, a geometric shape or a symbol.

Also, the content must reflect the cognitive areas to work with.

The difficulty of this activity could be increased by placing the missing section in a low texturized area of the image.

Activity Name	Activity Description	Main Cognitive Areas	Activity Alternatives
Fill the gap	- Choose the image that fills the missing section of the reference image.	Visual perception. Orientation: Spatial. Praxis: Construction. Thinking process: Reasoning.	Images of one element. Images of several elements Images of mixed elements Silhouette Sketch Figures Symbols

Sequences

In this activity, a list of elements is displayed. These elements are related by a temporal sequence, but they are displayed unordered. The user must select them in the correct order.

Activity Name	Activity Description	Main Cognitive Areas	Activity Alternatives
Temporal sequence	- Select the items in the correct order to fulfill the following task.	Thinking process.	
Alphabetical order	- Select the items in alphabetical order. - Select the items in inverted alphabetical order.	Thinking process. Language.	Alphabetical order. Inverted alphabetical order.
Compose a word	- Select the letters in the correct order to construct a word.	Thinking process. Language.	
Compose a statement	- Select the words in the correct order to construct a statement.	Thinking process. Language.	
Compose a text	- Select the statements in the correct order to construct a text.	Thinking process. Language.	
Numerical order	- Select the items in numerical order. - Select the items in inverted numerical order.	Thinking process. Numerical process: numbers.	Numerical order. Inverted numerical order.
Compose a number	- Select the items to construct the largest possible number. - Select the items to construct the lowest possible number.	Numerical process: numbers.	Largest possible number. Lowest possible number.

Multiple Choice

In this activity, a selection criteria is suggested, and the user must select those images that matches it.
The selection criteria constraints the activity alternatives. Thus, each variant is exercising a certain cognitive area. All of them excite the thinking processes: classification and working memory.

Activity Name	Activity Description	Main Cognitive Areas	Activity Alternatives
Object purpose	- Select the purposes of the reference object. - Select which object you use to <purpose>.	Praxis: Ideational.	Object-Function. Function-Object.
Image recognition	- Select the images that represent a concept. - Select the faces that reflex a mood. - Select the images that fit some criteria.	Visual perception.	Places. Mood and emotions. Symbols. Extensible.
Elements association – Sorting	- Select the images that are related to each other. - Select the images that are related to a concept.	Thinking process: reasoning, classification.	Images related among them. Images related to a concept.
Math	- Select the correct mathematical operations. - Select the incorrect mathematical operations.	Numerical processing: calc.	Correct operations. Incorrect operations.

Choose Among Six

Six images are shown in this activity. After some timespan, the images are displayed again but one of them changed to a different one. The user must select the image that did not show in the first step.

To improve the activity, the reference pictures could be pictures (portrait, numerous or mixed), silhouettes, sketches, geometric shapes or symbols.

Activity Name	Activity Description	Main Cognitive Areas	Activity Alternatives
Choose among six	- Observe the images and, after the timespan, select the element that did not show in the first step.	Visual perception. Attention. Visual short term memory.	Images of one element. Images of several elements Images of mixed elements Silhouette Sketch Figures Symbols Colors Numbers Letters

Word Search

A reference image is displayed first. The user must search for words related to the image in the grid of letters shown alongside.
To improve the activity, the user could search for not one but several words. Also, the image could reflect several objects.

Activity Name	Activity Description	Main Cognitive Areas	Activity Alternatives
Word Search	- Search for the word -or words- that are related to the image in the grid of letters.	Visual perception. Language: Names. Sustained attention. Focus.	