## WORKING MEMORY: PHONOLOGICAL LOOP

## Worksheet

## WORKING MEMORY: PHONOLOGICAL LOOP <br> INTRODUCTION

## Note for the administrator

## Principle of the task

Working memory refers to the brain's capacity for short-term abstraction and manipulation of information. It represents a fundamental neurocognitive process in various aspects of everyday functioning. The phonological loop is a part of working memory; it is the inner voice we hear when we are trying to remember a phone number for a moment so that we can dial it quickly, when reading silently, or when counting in our heads. The purpose of this loop/voice is to retain the information in short-term memory and then use it.

## Reasons for practice

Working memory contains thoughts which are made available to the mind just when they are needed to carry out a mental task or to solve a problem. The phonological loop is designed to retain verbal information through voiceless repetition. Tasks targeting the phonological loop enhance the working memory function, increasing the amount of information the loop retains, thereby improving everyday functioning.

## Information for the client

We use working memory in everyday situations without realising it. Have you ever been in a shop wondering what else you wanted to buy and could not remember? Or stopped in a room in your house and could not remember what you were going to get? Working memory training increases working memory capacity, which affects the level of storytelling, decision-making skills, the ability to think quickly and accurately, and organizational skills. Working memory training improves performance on tasks that require attention and executive functions (planning, reasoning, etc.).

## Equipment

■ Stationery

- Client Worksheet

■ Administrator Worksheet

Practiced cognitive skills
working memory
(phonological loop),
attention, executive
functions

## WORKING MEMORY: PHONOLOGICAL LOOP TASKS

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1) Task
a) You will hear a series of numbers. If you hear the number 11 before the number 9 raise your hand.
$3,4,11,15,11,9,12,20,9,23,20,11,3,1,11,9,18,11,5,9$, $26,20,17,39,17,9,11,9,9,10,19,5,8,11,22,1,19,11,9,4$
b) You will hear a series of numbers. If you hear an odd number before an even number, tap the table.

1, 2, 4, 5, 2, 4, 3, 5, 6, 8, 9, 7, 6, 6, 8, 1, 3, 4, 9, 6, 4, 4, 5, 2, 1, 4,
6, 5, 7, 8, 6, 2, 3, 1, 4, 5, 7, 9, 2, 3, 4, 7, 6, 9, 4, 3, 1, 2, 7, 3, 5, 6
c) You will hear a series of numbers. If you hear a number that is the same as the number you heard two numbers back, stamp your foot.
$2,4,5,2,3,4,6,3,8,9,7,2,6,4,6,6,4,1,9,3,5,6,3,9,5$

## 2) Task

You will hear a series of words. When I finish, your task will be to list only words that belong to the same category.. Note: correct response to be found in brackets

Practice:
apple, chair, car, banana, doll, orange, keys, mobile (fruit category)

A series of words:
cucumber, pencil, book, pen, strawberry, television, tree, crayon (stationery)
bed, sight, plate, smell, wheel, box, touch, clock, window (senses)
pillow, goat, knife, table, angel, cow, yoghurt, pine tree, pig, cup (pets/farm animals)
newspaper, almonds, cupboard, ice cream, table, glasses, chair, chest of drawers, bee, bread, school (furniture)
3) Task

You will hear a series of numbers and words. When I finish, rank the numbers you heard from smallest to largest.
Note: Correct answers are in bold.
Number and word series:
a) three, letter, five, window, door, seven
$(3,5,7)$
b) sun, nine, candle, four, horse, six, photo, one
(1, 4, 6, 9)
c) cage, rose, two, one, box, eight, bird, car, five, three (1, 2, 3, 5, 8)

You will hear a series of numbers and words. When I finish, rank the numbers you heard from largest to smallest.

A series of numbers and words:
d) street, eight, bear, stairs, ten, scissors, five, window, shoes, one, six, carpet, bell
(10, 8, 6, 5, 1)

4) Task

You will hear a series of words. If you hear a word that is the same as the two words before it, raise your hand.
Note: Correct answers are in bold.

A series of words:
a) mom, flour, forest, boat, river, forest, lake, swimsuit, corn, ice cream, swimwear, rainbow
b) cook, draw, jump, sing, draw, read, sleep, dance, read, talk, exercise, eat
c) apple, banana, pear, apple, raspberry, melon, peach, raspberry, plum, raspberry, orange, pineapple, orange
d) cucumber, pepper, cucumber, carrot, pepper, tomato, cabbage, onion, tomato, onion, cauliflower, eggplant, onion


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REMEMBER TO REMEMBER

