

Appendix 1. Dual-Task Intervention Protocol

Sessions	Stimulus	Cognitive tasks	Exercise
1,2	MT	Subtraction, multiplicación, and división	Circuit + Resistance training Walking
	Reasoning	To guess a hidden Word	"
3,4	Short-term memory (STM)	To read a sequence of words	"
5,6	Motor learning	Learning a chain of movements	"
	Semantic and phonological fluency	To memorize words from a particular category	"
	MT	Subtraction, multiplication, and división	"
7,8	ML	Learning a chain of movements	"
	Reasoning	To guess a hidden Word.	"
9,10	LTM and ML	Remembering the previous chain of movements	"
	Speech	To create a new tale	"
11,12	Attention, Decision-making and STM	To Perform a specific movement at the same time as the sound of the whistle.	"
	STM and Attention	To repeat the previous statement was said and add the name of a fruit to the previous statement.	"
13,14	MT	Subtraction, multiplication, and división	"
	Reasoning	To guess a hidden Word	"
15,16	Attention, decision-making, and inhibition	Perform a specific movement at the same time as the sound of the whistle.	"
	Inhibition and Processing speed	Stroop test	"
17,18	LTM and MT	Remembering the previous chain of movements.	"
	LTM and autobiographical	To identify the singer, name the song	"
19,20	Attention, decision-making, and MT	To Perform a specific movement at the same time as the sound of the whistle.	"
	Speech	To say the days of the months of the year, and the alphabet in reverse order.	"

Note: MT, mathematical thinking; ML, motor learning; LTM, long term memory; STM, short term memory

