**Spatial *1*-back Task Instructions**

Dominant hand: R

Thank you again for your contribution to the current research

The goal of this task is to remember the location of a white square within a 3x3 grid and identify if the **current** grid location is the same or different as the grid location presented 1-location **previously**. The task consists of 1 ‘block’ of 45 trials and should take approximately 5 minutes to complete.

**Task protocol**

After a 5 second countdown, a blank grid will appear in the centre of the screen.

A picture containing icon

Description automatically generatedA white square will then be briefly shown in one of the 9 possible grid locations on the screen. You will need to remember the grid location of the current white square and the location previously presented to identify if the current location is the same or different as the previous one. See below for an example. Each trial you will have 5 seconds to respond until the next location is shown.

When the response instruction appears, use the ‘**M**’ keyboard key to signal that the most recent location is the **same** as the location shown 1-previously. If the location is **different**, respond using the ‘**Z**’ keyboard key. This instruction will be presented at the bottom of the screen when it is time to respond. For the duration of the task please place the **index** finger of each hand on the ‘M’ and ‘Z’ keys respectively.

**Take your time** (up to 5 seconds per trial) as only accuracy is key in this task.

**A picture containing text, scoreboard, clipart

Description automatically generated**There is 1 block of 45 trials.

**If you have any questions, please ask the experimenter now**

***Text

Description automatically generated*Spatial *2*-back, *3*-back, and *4*-back Task Instructions**

Dominant hand: R

Thank you again for your contribution to the current research

The goal of this task is similar to the *1*-back. You must remember the location of white squares and identify if the **current** grid location is the same or different as the grid location presented ‘***n***’ locations **previously**. The task consists of 3 ‘blocks’ containing 45 trials each, with ‘*n*’ increasing each block from 2 to 4. The task will take approximately 10 minutes to complete.

**Task protocol**

At the start of each block, you will be instructed to remember the location of the white square and report whether it is the same or different as the location presented ‘***n***’ trials previously. **The value of ‘*n*’ increases each block, so please read instructions in full each time you are prompted.**

A picture containing graphical user interface

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As before, use the ‘**M**’ keyboard key to signal that the most recent location is the **same** as the location ‘*n*’ trials back and ‘**Z**’ keyboard key if the location is different.

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**A picture containing chart

Description automatically generated**There are 3 ‘blocks’ in total; each block contains 45 trials.

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Description automatically generatedSpatial *1*-back Task Instructions**

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