

**MatLab Commands:** *to break out of any screen...*

CTRL+C, ENTER

S-C-A, ENTER

## PRACTICE RUN

### *Verbal Script*

**MatLab Commands**

cd ~/PATH\_TO\_FBMEM\_FOLDER

butterflies\_svlo

\*Refer to subject sheet for subject # and input

1. Today you'll be playing a game, and we're going to do a practice run right now to explain the rules of the game.
2. The instructions are written on the screen, but I'm going to read them to you.
3. In the game, you'll be learning which flowers different butterflies like to feed from.
4. On each trial, you'll see a butterfly and two flowers on the screen and you'll be using the arrow keys to make your choice
  - a. Please keep your pointer finger and your middle finger on the arrow keys
  - b. You'll push the left arrow key to choose the flower on the LEFT and the right arrow key to choose the flower on the RIGHT.
5. Each butterfly can feed from both flowers, but will have a favorite.
  - a. Your job is to figure out which flower the butterfly likes to feed from the MOST.
6. After you choose a flower, you'll be told if your choice is correct.
  - a. You'll see a picture with a BLUE frame if your choice is CORRECT and you'll see a picture with a RED frame if your choice is INCORRECT.
7. The first few times you see the flowers, you'll have to guess but as the game goes on, you will see all the butterflies many times over, and you should try your best to get as many CORRECT as you can by choosing the favorite flower for that butterfly.
8. Make sure to answer for each trial. You'll have up to 4 seconds to make your choice otherwise the screen will show a screen that says TOO LATE and move on.
9. There will be breaks in the full game, and we will show you what this looks like in the practice in just a moment. In the full game, there will be 5 parts separated by breaks. Sometimes during a break you will be told to come get the experimenter, that's me, so just open this door and come out to get me if the break screen tells you to. The breaks are self-timed so if you do need to take a break, do so and when you are ready to resume the game, follow the instructions on the screen. BUT if you don't need to take a break, just press the button to continue playing right away.
  - a. Also, the game will stay the same after the breaks/across all five parts, so the same butterflies and flowers you see in the first block will be the same for the next blocks, and their favorite flowers will stay the same. These breaks are only to give you a little rest, the game stays the same across the breaks.
10. Lastly the butterflies and flowers you see right now in the practice will be different from the ones you see in the scan and your score you get in the practice won't count toward your score in the real game.
11. Any questions?

STAY IN ROOM FOR THE PRACTICE. WATCH TO BE SURE THEY UNDERSTAND WHAT TO DO

12. OK, do you have any questions about how to play?

### SET UP THE LEARNING TASK

**MatLab Commands**

butterflies\_svlo

\*Refer to subject sheet for subject # and input

13. As soon as I leave the room please press "T" to begin the game, and come get me when the break screen tells you to get the researcher

## TEST PHASE

### *Verbal Script*

#### SET UP THE TEST PHASE

##### **MatLab Commands**

butterfly\_probe

\*Refer to subject sheet for subject # and other input MUST MATCH THE INPUT FROM LEARNING

1. OK now the game will continue, and all the favorite flowers for each butterfly will stay the same, but the computer won't tell you if you are right or wrong. You might feel like this part of the game is a little faster. Any questions? Please start the game when I leave the room and come get me when it is finished.

## SUBSEQUENT MEMORY TASK

### *Verbal Script*

##### **MatLab Commands**

clear

butterfly\_svlo\_SM\_nocolor2

\*Refer to subject sheet for subject #, enter "svlo", list number MUST MATCH THE INPUT FROM LEARNING

1. So this is the final part of the game. It involves a surprise memory test. We never told you we were going to do this so just try the best that you can.
2. In the game you just played, you saw pictures of different animals and objects and so on. Your job in this part is to try your best to remember whether or not you saw those pictures in the first game.
  - a. A picture is considered OLD if you saw it in the first game, in which case you press 7.
  - b. A picture is considered NEW if you did not see it in the first game, in which case you press 9.
  - c. The instructions for OLD and NEW will be on the screen so you don't need to worry about remembering it now.
3. After you pick OLD or NEW, you will be asked how sure you are about your decision.
4. Let's do the first few together! (WATCH and verbally walk them through the first few trials)
5. You're just going to continue through the screen and follow the instructions. When you're done, let me know!

##### **Questionnaires**

- Butterfly Questionnaire