Contact info:

Michael Carter
Phone: (780) 499-2939
Email: mjcarter@ualberta.ca
University of Alberta
Department of Psychology

Summary of Experiment

In this experiment, we will be assessing short-term memory and the effects of a training paradigm.

This study consists of three stages:

1. Initial memory testing
    - Includes a participant questionnaire
2. Training
3. Final memory testing
    - Includes a post-training assessment

The testing and assessing portions will take at most one hour total, and the training period is self-paced over a period of 3-5 days.

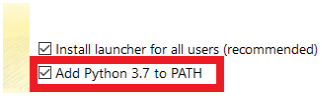
In the training phase, participants are required to read text that has been manipulated in appearance and keep track of the total number of words read. The goal is to train on text which one would typically read, and to train on as much text as possible. The text can be of any type (i.e. textbooks, articles, novels, etc.), but must be in English. After each testing phase, participants must submit their results file (detailed in the Testing Instructions).

(last revised: Nov. 22, 2019)

Contents

Participant Instructions

1. Download and install Python (requires an internet connection).
    1. Download Python from https://www.python.org/downloads/
    2. Follow the installation wizard.
       Important: Select "Add Python to PATH"

    3. Install the required packages.
       On Windows:
        - Open Command Prompt (windows+R → "cmd" → Enter).
        - Type the command "pip install pygame", and press Enter.
        - Type the command "pip install numpy", and press Enter.
        - Note: if you get an "access denied" error, try adding "--user" to the end of the command.

       On Linux:
        - Open the terminal.
        - Type the command "pip install pygame", and press Enter.
        - Type the command "pip install numpy", and press Enter.

       On Mac:
        - Installation on Mac is a bit more complicated. Follow the instructions given here: https://cs.hofstra.edu/docs/pages/guides/InstallingPygame.html

2. Complete the participant questionnaire (< 5 mins):
   https://forms.gle/24WBs8CQsZy4ojVn6

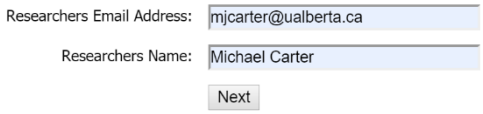
3. Begin the pre-test by following the Testing Instructions.
   a) Once the pre-test has been complete, email me the results file (Subject: "Pre-Test", mjcarter@ualberta.ca).

4. Begin training! Follow the Training Instructions on the next page.

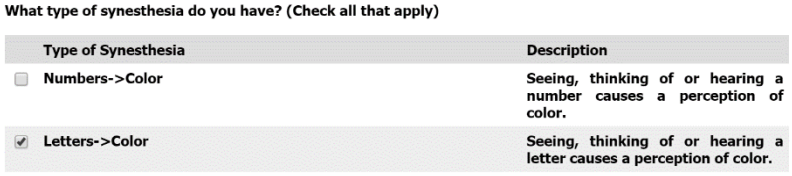
5. After 3-5 days of training, complete the post-training test by following the Testing Instructions (identical to the pre-test).
   b) Once the post-training test has been completed, email me the results file (Subject: "Post-Test", mjcarter@ualberta.ca).

6. Finally, complete the post-training test battery (10-15 mins):
   https://www.synesthete.org/login.php?action=register&remail=&semail=&ch=

1. Register with the same name and email provided earlier.
2. Make sure to share the results with me.



3. Select **only** “Letters->Color”.

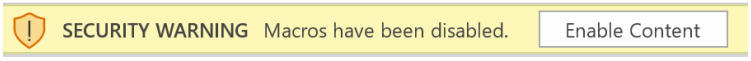


No other personal information is required.

Training Instructions

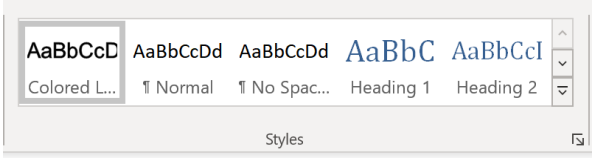
a. Open “ColoredWordsTemplate.dotm”

Important: Click “Enable Content”

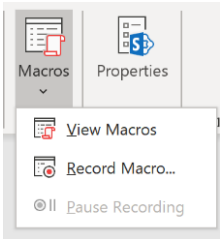


b. Paste your text.

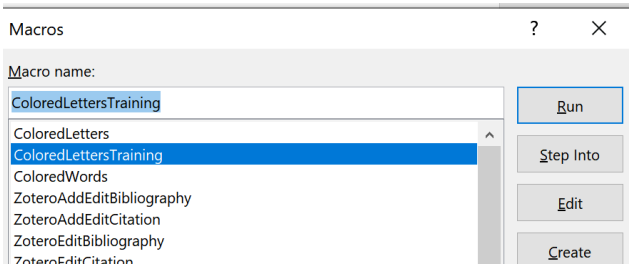
c. Highlight your text (ctrl+A), then click on the Home ribbon, and select the style “Colored Letters”.



d. Click on the View ribbon, then Macros: View Macros.



e. Choose the macro “ColoredLettersTraining”, then click Run.



f. Begin reading! Remember to record how many words are read (using Microsoft Word’s built-in word count).

Testing Instructions

Make sure to install Python before continuing

1. In the folder “Memory Test”, run “main.py”
2. Follow the instructions on the screen.
    a. After the test is complete, a second version of the test will automatically open.
    b. After the second version is complete, the program will automatically close.
3. Once the test has been completed, it will create a file named “results” followed by three digits.
    a. Email this results file back to me.

Contact me at mjcarter@ualberta.ca if you encounter any issues with the testing program.