**MMD Study 1 – Script**

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**Pre-study: Open slots**

**Action: Log into Google Calendar (https://calendar.google.com) and select the “MQ+MMD Study - June 2017” calendar**

* **Add slots in the calendar when you plan to run participants**

**Action: Log in Reservax (**[*https://www.reservax.com/hciatubc/*](https://www.reservax.com/hciatubc/)**)**

* **Select “Add/Remove time slots”**
* **In “**Choose experiment:”, pick “MMD Study”
* Click “Add slots” and enter the time
* **The study duration is about 120 minutes**

**PART 1: Pretests at home**

**Action: Check if the participant has already participated in the Metroquest study via the Google Spreadsheet:**

* [*https://docs.google.com/spreadsheets/d/1Q\_600kGZz\_8iPXTXb70JEdQjyEmB\_RHs2na7gxHpFQ4/edit#gid=0*](https://docs.google.com/spreadsheets/d/1Q_600kGZz_8iPXTXb70JEdQjyEmB_RHs2na7gxHpFQ4/edit#gid=0)
  + If yes, simply add the “Scheduled date” for the MMD study for that participant
  + If not, add the participant in a new line (name, email, scheduled date)
  + In both case, note the **Participant ID** (**PID**)
* The MMD and MQ studies **cannot be done the same day**! If the Google Spreadsheet shows that the participant already booked a slot for the MQ study that day, you need to delete the appointment in Reservax and kindly invite the participant to reschedule.

**Action: Send an email to the participants a few days before with:**

* **A reminder of the appointment**
* **An invitation to complete the following online tests (state clearly that these tests are mandatory to get the compensation):**
  + *https://www.cs.ubc.ca/group/iui/MMDTests/OP.php?uid=PID*
  + *https://www.cs.ubc.ca/group/iui/MMDTests/VARK.php?uid=PID*
  + *https://www.cs.ubc.ca/group/iui/MMDTests/NC.php?uid=PID*
  + *https://www.cs.ubc.ca/group/iui/MMDTests/\_02\_calibrated\_VL\_tests/\_03\_BC/index.html?uid=PID* [If the participant already did the Metroquest study, do not send this test!]
* Their participant number (PID) to use for the tests
* **The consent form (***http://www.cs.ubc.ca/~dtoker/MMD\_study/consent\_form\_mmd.pdf***)**

**You can find a sample email here:**

***http://www.cs.ubc.ca/~dtoker/MMD\_study/MMD\_email\_template.txt***

**Action: One or two days before the appointment, check that the home tests have been done, using the following link (look for the PID on the left):**

* ***https://www.cs.ubc.ca/group/iui/MMDTests/verify\_home\_tests.php***
* **Send a reminder to the participant if the test have not been done. State clearly that tests must be done.**

**PART 2: MAIN STUDY**

**0. Preliminary steps:**

**Action: Gather a copy of all the study documents you will need for the next participant (i.e., consent form, payment form, and user characteristics tests). Put the user ID at the top of each form.**

**Action: - Open Tobii Studio, then open the “MMD Study 1” project (NOT the Metroquest project), check that the eye tracker is correctly detected.**

* **If Tobii Study is already opened, always check that the current project is “MMD Study 1”**
  + **If not, just change project in “File -> Open project”**

**Action: - Open a console using the link on the desktop “Experiment Platform ”. In the console, type: “python helloworld\_pilot.py” and hit enter.**

**Action: - Open Google Chrome with 1 tab (if any tabs are already opened, close them all) with the following site:**

* **localhost:8888**

**Action: - Open Matlab. In Matlab, switch the current directory to “C:/Users/admin/Desktop/FVMatlab” (if it is not already the case).**

**1. Welcome the participant**

**Say: “Thank you for participating in this study. The experiment is about 120min long, and you will be paid $50 for your participation. You will first work on the computer, followed by a short break. After, you will complete some paper-based tests.” Please put your phone in airplane mode, since even receiving a message on vibrate can disrupt the study.**

**Action: - Ask the participant to sign the consent form.**

**2. Pre-Study Tests**

**Visual working memory test (VisWM):\*If the participant already did the Metroquest study, do not do this test**

**Say: “First we are going to administer a short computer-based test to measure your visual attention.”**

**Action: Display Matlab, run “**WMTaskPractice” (right click, “Run”). Tell the participant that it is just a practice test. Tell them that for this test, the left arrow on the keyboard means “yes” and the right arrow means “no”.

**Action:** **Run “**WMTask” (right click, “Run”). Enter the following participant number: “mmd+PID” (like “mmd23”).

Tell the user: “t**he test should only take about 4 minutes but it may feel like it’s going on forever, but rest assured it does end! Good luck!”**

**NAART Vocabulary Test: Tell the user they will now complete a spoken vocabulary test. Read them the instructions on the experimenter form, and use the voice recording software on the computer.**

**3. Questionnaire and Training**

**Study Software in Web Browser: - Go to the google chrome tab and select ‘start new experiment’ and hit submit.**

**Action: - Enter the participant ID (e.g., 23) and click submit.**

**Action: - Ask the participant to complete the Pre-study questionnaire on the screen.**

**Action: - Once submitted, you will see a sample MMD snippet on the screen. Now you can describe the main task to the participant:**

**“Now I will explain to you the main part of the study.** In this study, we will present to you short documents (i.e., snippets) that have been extracted from longer real-world documents (e.g., news articles, blogs etc.), as you can see on the screen. Your task will be to read-over the snippet, then answer a few questions (the questions will ask for your opinion and test your comprehension). The **study** will require you to carry out this task for 15 different snippets.”

**Action: - Click ‘Next’, and the questions will now appear. Describe the questions to the participant:**

“Here is an example of how the questions will be presented to you after each snippet. At the top are two questions asking your opinion on how easy the snippet was to read, and then if you’d be interested in reading the full article from which this snippet was extracted. Below are 2-3 questions testing your comprehension of the snippets. Please also take note of the progress bar at the top right of the question page in the pink circle. The progress bar will show you which snippet you’re working on, starting at 1 and will increment to a total of 15.” [MAKE SURE YOU POINT TO THE PROGRESS BAR]~

Now explain to the participant the reward they can earn:

“We are also offering bonus prizes to the top participants. At the end of the study, the top three participants will each receive an additional $50 cash. Scoring will be based on the accuracy of the comprehension questions. Speed will also be a factor in determining the winner. So please do your best and you could win extra money!”

**Action: - When you’re done, click ‘Next’.**

**4. Tobii Studio Calibration**

**Action: - In Tobii Studio, hit “Start recording”. Create a new participant starting with a “P” + the PID of the participant (for instance “P23” for participant number 23).**

**Tell the participant: “**

**-** It is **very important** that you do not move around or look away from the screen during this part of the study**.**

**- It is important that you don’t move the chair, so** please make sure that you are comfortable. I suggest putting your hand on the mouse so you will have a better idea of where you need to be sitting (you will not need the keyboard).

**- You cannot lean on the right or of the left, as your head must be in line with the monitor at all time.**

**- Y**ou should not raise your hands so as to not disturb the tracking.”

**Action:** Administer calibration:

* **Adjust the eye tracking monitor to the participant. This includes adjusting the distance of the screen, followed by the tilt of the screen. (You can use books to raise the screen if the participant is tall.**
* **Tell the participant to follow the red dot on the screen, then hit “Start”. Repeat this step until the calibration is OK. Then hit “Accept”.**

**Action: Begin recording: Enter the name of the session (“Rec PID”, for instance “Rec 23”) and hit “Start recording”.**

**Action: Pupil calibration. Return to Google Chrome and go full screen (hit F11). Tell the participant they will need to stare at the black cross at center of the screen for about 10 seconds. Click ‘Calibrate Pupil Now’, move the mouse to the lower corner off the screen and wait a *FULL*  10 seconds. Once done, scroll down and click ‘Next’.**

**5. Main task**

**Action: Main Task**

**- Ask the user if they are ready to begin with the snippets and questions.**

**- Also remind the participant that their gaze is now tracked so they must avoid moving as much as possible.**

**- Tell the user they can click ‘Begin Study’ when they are ready.**

**Action: when the participant is done: disable full screen (F11) and stop the Tobii studio recording by hitting escape.**

**6. Break Time**

**Action: Tell the user it’s break time and that they have to stand up and walk around for a few minutes. Let them know they can use the toilet if needed. Also offer them a juice box. After 3-5 minutes, resume the study.**

**7. Post-questionnaire**

**Action: Have users click ‘next’ and ‘answer the post-study question!**

**PART 3: PAPER-BASED TESTS**

**Tell the participant that he will complete a set of FIVE paper-based tests now (to better understand how he/she processed the snippets).**

**Note: for all paper-based tests, write the PID on the test!**

**1. Perceptual Speed (PS) \*If the participant already did the Metroquest study, do not do this test.**

**Action: Give the paper-based perceptual speed test to the participant, let him read the instructions. Before he starts, clarify that it’s a speed test so he should tic the boxes as fast as possible. Ask him to start when he wants and stop him after 1min30. Start the timer when the pen touches the page for the first time.**

**2. Written Vocabulary Test (Vocab)**

**Action: Give the Vocabulary test and ask the participant to complete all the pages. This test is not timed.**

**3. Shape Memory Test (MV)**

**Action: Give the paper-based visual scanning test to the participant, let him read the instructions. Ask him to start when he wants, and when they turn the page, start the timer for 2 minutes. Start the timer once the participant has folded over the page and placed it down on the desk. When the timer goes off, have them fill in the memory section on the next page.**

**Once completed, repeat the process one more time using the remaining pages of the test.**

**4. Personality traits (TIPI) \*If the participant already did the Metroquest study, do not do this test.**

**Action: Administer the personality questionnaire to the participant.**

**5. Hidden Patterns Test (Disembedding)**

**Action: Give the paper-based hidden patterns test to the participant, let him read the instructions. Before he starts, clarify that it’s a speed test so he should tic the boxes as fast as possible. Ask him to start when he wants and stop him after 3 minutes. Start the timer when the pen touches the page for the first time.**

1. **End**

**Action: - Ask the participant to sign the receipt, and pay them $50.**

**- Update the Google spreadsheet (with the list of all participants for the MMD an MQ studies).**

**- Put all the documents for this participant into the Binder.**