**MetroQuest Experiment – Script**

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**PART 1: Pretests at home**

**Action 1: add the new participant in the Google Spreadsheet to have the participant number/ID (PID for now on):**

* [*https://docs.google.com/spreadsheets/d/111lCBlIC0FMvMCRNfWAXclbqhJ5o\_AW1LLvyOy0p9I4/edit#gid=0*](https://docs.google.com/spreadsheets/d/111lCBlIC0FMvMCRNfWAXclbqhJ5o_AW1LLvyOy0p9I4/edit#gid=0)
* You will need the PID for the main study!

**Action 2: Send an email to the participants few days before with:**

* **A reminder of the appointment**
* **An invitation to complete the three following online tests (state clearly that these tests are mandatory to get the compensation):**
  + *http://www.cs.ubc.ca/~lalles/MetroQuest/study\_website/LC.php?uid=PID*
  + *http://www.cs.ubc.ca/~lalles/MetroQuest/study\_website/NC.php?uid=PID*
  + *http://www.cs.ubc.ca/~lalles/MetroQuest/study\_website/OP.php?uid=PID*
* Their participant number (PID) to use for the tests
* **The consent form**

**Action 3: One or two day before the appointment, check that the tests have been done here (look for the PID on the left, toward the end of the file):**

* ***http://www.cs.ubc.ca/~lalles/MetroQuest/study\_website/data/Locus\_all.txt***
* ***http://www.cs.ubc.ca/~lalles/MetroQuest/study\_website/data/NeedCognition\_all.txt***
* ***http://www.cs.ubc.ca/~lalles/MetroQuest/study\_website/data/OSPAN\_all.txt***

**Send a reminder to the participant if the test have not been done (the numbers on the left are the PID).**

**PART 2: MAIN STUDY**

**0. Preliminary steps**

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

**Action 2: - Open Google Chrome with 4 tabs (if the tabs are already opened, close or refresh all of them)**

**- Prequestionnaire:** *www.cs.ubc.ca/~lalles/MetroQuest/study\_website/prequestionnaire.php*

**- Study software:** *https://ubc.metroquest.com/*

**- Postquetionnaire:** *http://www.cs.ubc.ca/~lalles/MetroQuest/*

**- VisualLit test:** *http://peopleviz.gforge.inria.fr/trunk/vLiteracy/home/index.html*

**(The links should be available in the history.)**

**Action 3: Open Matlab (it is long), switch the current folder to “FVMatlab”.**

**1. Welcome the participant**

**“Thank you for participating in this study. The experiment is about 1h long. You will first work with a software, then complete a set of tests. We will record personal data as well as gaze data.”**

**Action 4: - ask the participant to sign the consent form.**

**2. Prequestionnaire**

**Action 5: ask the participant to complete the Prequestionnaire (1st tab) in Chrome**

**3. Calibration**

**Action 6: - In Tobii Studio, hit “Start recording now”. 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 while you are doing this part of the study**. Also it is important that you don’t move the chair, so** please get comfortable in the chair. I suggest putting your hand on the mouse so you will have a better idea of where you need to be sitting.”

**Action 7:** Administer calibration. **Tell the participant to follow the red dot on the screen, then hit “Calibrate now”. Repeat this step until the calibration is OK. Then hit “Accept”.**

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

**Action 8: Pupil calibration. Display the first tab of Chrome again and ask the participant to look at the black cross at center of the screen for about 5 seconds. Go full screen (hit F11) and click somewhere on the webpage. Wait 5 to 10 seconds. Click again somewhere on the webpage. Disable the full screen mode (hit F11 again).**

**IF you have accidently closed the first tab, manually open *http://www.cs.ubc.ca/~lalles/MetroQuest/study\_website/pupil\_calibration.php?uid=PID***

**to do the pupil calibration (don’t forget to modify “PID” at the end of the URL).**

**4. Main task**

**Action 9: Display the second tab of Chrome (Study software).**

**Describe the main task to the participant: “This study is about the rapid transit line project from and to UBC. This is currently an ongoing project so different alternatives are possible and we want to know your opinion about them. Please follow the instruction given by the displayed application to learn about the rapid transit scenarios we have identified and provide your input.**

**Please not that the realization of the project is planned in several years, so make your choice for the sake of the community.”**

**Action 10: Go full screen (hit f11)!!! Then let the participant begin the task (it takes 5 minutes on average)**

**Action 11: when the participant has finished: disable full screen (F11) and stop the Tobii studio recording.**

**5. Post-questionnaire**

**Action 12: display the Postquestionnaire in Chrome (3rd tab) and ask the participant to answer the questions. Do not close the page at the end.**

**PART 3: TESTS**

**Tell the user that he will complete a set of computerized and paper-based tests now (to understand better how he/she worked with the visualization and processed the data).**

**6. Perceptual Speed (PS)**

**Action 13: Give the paper-based perceptual speed test to the participant, let him read the instruction. 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.**

**7. Spatial memory (SpM)**

**Action 14: Give the building map test to the user, ask him to read the instruction (first 2 pages) and complete the practice test. Then do the tests.**

**8. Visual scanning (VS)**

**Action 15: Same with the diagrammatic map test.**

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

**9. Visual working memory test (VisWM)**

**Action 16: Display Matlab, run “**WMTask”, enter the following participant number: “mq+PID” (like “mq23”).

Mention that the left arrow on the keyboard means “no” and the right arrow means “yes”.

Let the user complete the test**.**

**10. Visual literacy (VisLit)**

**Action 17: Display the “VisualLit test” (4th tab) in Chrome. Click on “BC: Bar chart test”. Go to the first task and quickly explain the test to the user. Then refresh the page (F5) and let the participant do it.**

**Once done, write the results (the final score) of the participants on the “Record of Visualization Literacy” document, along with the PID.**

**11. Final Interview (only if you have 2~3 minutes at the end)**

**Action 18. Open ”Free Audio recording” (on the Desktop). ”Select Option-> ‘Change Directory’”.** Click on ‘Make new folder’, name this as the ‘mq+PID’ (like ‘mq23’) -> select ‘ok’.

Then click the **START** button to begin recording (ensure the green light is on the mic).

**Action 19. Display the third tab in Chrome with the study factors.**

Ask the participant to select their three most important factors and explain why (if they don’t, keep asking why?).

Ask the participant to detail his/her answers for all factors rated as “not useful” or “don’t remember”.

**Action 20.** Stop recording.

**12. End**

**Ask the participant to sign the receipt, pay the $30, give the debrief form.**