**MSNV Study – Script**

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**Pre-study: Open slots**

**Action: Create a UX Class reservation in** <http://ux.fiit.stuba.sk/reservation/schedule.php>

* **The study duration is about 120 minutes**
* **Reserve also entire UX Lab for after-study tests**

**PART 1: Pretests at home**

**Action: Add the participant and his/her “Scheduled date” into the Google Spreadsheet:**

* <https://docs.google.com/spreadsheets/d/1a5jSwW788q2F0IhpE9XTTVWb2e6PdeLwQ_5rtCn0_O4/edit?usp=sharing>
  + Note the **Participant ID** (**PID**)
  + Note the **participant’s group** – visualization (group A), no visualization (group B)

**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 be able to participate):**
  + *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*
* 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:**

[*https://github.com/dtoker/experimenter\_platform\_BT/blob/master/Study%20Forms%20and%20Tests/MMD\_email\_template\_sk.txt*](https://github.com/dtoker/experimenter_platform_BT/blob/master/Study%20Forms%20and%20Tests/MMD_email_template_sk.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 tests 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 all participants for the next session (i.e., consent form and user characteristics tests). Put the user ID at the top of each form.**

**Action: Darken the windows and turn on all the lights so that we have constant light conditions between sessions.**

**Action: On each computer, open Tobii Studio, then open the “IN MSNV Study” project, check that the eye tracker is correctly detected.**

* **If Tobii Study is already opened, always check that the current project is “IN MSNV Study”**
  + **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 start\_MSNV\_study.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\ux\Documents\experimenter\_platform\_BT\FVMatlab” (if it is not already the case).**

**1. Welcome the participants**

**Action: Beam the presentation with instructions for all the participants to see. The presentation can be found here: TODO**

**Say: “Thank you for participating in this study. The experiment is about 120min long, and you will be able to choose a bottle of beer or a chocolate bar as a reward for your participation. You will first complete some paper-based tests, then you will work on the computer, which will be followed by a short break. After, you will complete a couple more paper-based tests. For the last test, which will require that you read couple words out loud, you will go to a different room, where the recording (one by one) will be taken. Please put your phone in airplane mode, since even receiving a message on vibrate can disrupt the study.”**

**Action: Ask the participants to sign the consent form.**

**2. Pre-Study Tests**

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

**1. Perceptual Speed (PS)**

**Action: Give the paper-based perceptual speed test to the participants, let them read the instructions. Before they start, clarify that it’s a speed test so they should tic the boxes as fast as possible. Wait for all the participants to read the instructions. Instruct the participants to start (to turn the page) and then start the timer. Stop them after 1min30.**

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

**Action: Give the paper-based visual scanning test to the participants, let them read the instructions. Wait for all the participants to read the instructions. Tell the participants to start (turn the page) and start the timer for 2 minutes. 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.**

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

**Action: Give the paper-based hidden patterns test to the participants, let them read the instructions. Before they start, clarify that it’s a speed test so they should tic the boxes as fast as possible. Wait for all the participants to read the instructions. Instruct the participants to start (to turn the page) and then start the timer. Stop them after 3 minutes.**

**4. Visual working memory test (VisWM):**

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

**Action: Tell participants to display Matlab, and run “**WMTaskPractice” (right click, “Run”). Tell the participants 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:** **Tell participants to display run “**WMTask” (right click, “Run”). They should enter the following participant number: “mmd+PID” (like “mmd23”).

Tell the participants: “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!”**

**3. Questionnaire and Training**

**Study Software in Web Browser: Tell participants to go to the Google Chrome tab and select ‘Start new experiment’ and hit submit.**

**Action: Ask the participants to enter their participant ID (e.g., 23) and click submit.**

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

**Action: Once submitted, they will see a sample MSNV snippet on the screen. Now you can describe the main task to the participant (DO NOT show the snippet on the slide):**

**“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: - Let participants click ‘Next’, and the questions will now appear. Describe the questions to the participants:**

“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 participants 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, instruct participants to 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 participants: “**

**-** 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 each participant. This includes adjusting the distance of the screen, followed by the tilt of the screen.**
* **Tell the participants 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. This will first run in Tobii Studio. Participants will be shown a series of screens (similar to the ones during previous eye tracker calibration) – their task is to stare at the small cross in a circle. Next, they will be presented screens of different color with a cross in the center, which they should stare at.**

**Action: 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 participants if they are ready to begin with the snippets and questions.**

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

**- Tell the participants they can click ‘Begin Study’ when they are ready (every participant must be in this step before starting the actual study).**

**Action: When the participant is done: disable full screen (F11) and stop the Tobii studio recording by hitting F10.**

**6. Break Time**

**Action: When every participant has finished, tell them 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 participants click ‘next’ and ‘answer the post-study question.**

**PART 3: PAPER-BASED TESTS**

**Tell the participants that they will complete a set of TWO paper-based tests and ONE spoken vocabulary test now.**

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

**1. Personality traits (TIPI)**

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

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

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

**3. 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. Save the recording to WAV file with name naart\_PID.wav, where PID is the participant’s ID (e.g., 23).**

**END**

**Action: - Ask the participant to collect their reward.**

**- Update the Google spreadsheet (with the list of all participants for the MSNV study).**

**- Put all the documents for each participant into separate folder.**