**RetGoals V1 Pilot: Instructions for Running Participants**

**Part 1: General Information**

**Overview:** This document is meant to serve as a guide for the steps that you will need to take in running participants during the initial pilot of RetGoals. It is not completely comprehensive, and is subject to change depending on how each run goes. If you run into anything that is confusing or seems incorrect, let Matt know and he will address it.

**Basics of Running PsychoPy**

* PsychoPy is the software that the lab generally uses for coding and running behavioral experiments. There are two main ways that people build experiments in PsychoPy: PsychoPy Builder, and PsychoPy Coder. The Builder is a GUI (graphic user interface) that shows the timeline of the experiment. The Coder is as it sounds, just code. RetGoals was created in PsychoPy Builder.
* PsychoPy is coded primarily in python, and python is an open source language, meaning that it undergoes incremental changes and updates very frequently. As such, there are many versions of PsychoPy, each with slightly different functionalities and potential bugs. RetGoals was coded using ***PsychoPy Version 2022.2.4****.*
* Generally speaking, experiments that were coded on earlier versions of PsychoPy can work on later versions of PsychoPy, but this is not *always* true. Given this, it’s good to try to run experiments on versions of PsychoPy that are either the same as or very closely followed the version that you coded it on.
* PsychoPy is a very consuming software, even when it is not running actively. For example, I have a 2023 MacBook Pro with a 16 hour battery life. I downloaded two versions of PsychoPy when I was coding the experiment, and my laptop battery was getting completely depleted within 3 hours, even when PsychoPy wasn’t open. So, it is good to limit the number of PsychoPy versions on computers. Therefore, the testing room computers that we are currently going to be using, B and D, only have a couple of versions of PsychoPy on them. It is important to chose the one that works best with our experiment code (more on that in a bit).
* The main file for PsychoPy experiments is the one that ends in “.psyexp”. For RetGoals, the name of the experiment file is “RetGoals\_v1.psyexp”.
* These are the basics of PsychoPy, and should help with understanding the “why” behind the steps that you need to take in opening and running the experiment, which are discussed on the next page.

**Best Practices for Running Participants**

* The number 1 priority is to make sure that the participant is comfortable, and a huge part of this is making sure that any questions or concerns they have are addressed. Prior to the experiment, if they have any questions about what the research is for, or what specific questions we are trying to answer, you want to keep it vague enough so that their data isn’t biased, but specific enough that they don’t feel lied to or concerned. If someone is curious, you can answer something along the lines of “We’re interested in people’s attention and memory under different conditions, which you’ll see as you go through the task.” If they are curious after the experiment is done, you can give them more details about the task and our questions.
* It is *super important* that people are not on their phones during the experiment, and don’t have access to check them while the experiment is running. **Always make sure that participants have turned their phones off prior to testing, and that they’ve put them away in their bags outside of the testing room**. We’re all very easily distracted by our phones, and having that quick access can bias an entire dataset.
* Psych experiments can be very long, and psych experiments usually have specific time conditions that you want to have control over. For this reason, it is important to make sure that participants have the chance to use the bathroom before the experiment begins, and that they know that they will not be able to leave the testing room once the experiment starts.
* Other than that, try to be as friendly as you can! Introduce yourself, try to be welcoming, etc. Psych experiments can often be boring and monotonous, and having a good experience with the person who is running the test can be the determining factor on whether people participate in psych experiments again or walk away from them.

**Part 2: Running RetGoals**

**Before the Participant Arrives**

* Boot up the testing computer in the room that you will be using. The computers are slow to start, so make sure to do this with ample time. The username that we use is “lab user”, and the password is hipp0campus.
* On the desktop, there is a folder named “Experiments”. Open this folder, and then open “RetGoals\_Pilot”
* Right click on the file named “RetGoals\_V1.psyexp”, and hover over the option “Open With”. Select “Other” A screenshot of a computer

  AI-generated content may be incorrect.
* In the menu that opens when you hit “Other”, you should see several versions of PsychoPy available, depending on what testing room you are using. In Testing Room B, the version of PsychoPy you will use is “PsychoPy 2.” In Testing Room D, the version is “PsychoPy2022-2-4”
* A screen should open that looks like the below image. If PsychoPy builder opens up and instead of this you see a more blank screen with the title on top that says something like “untitledexperiment”, then drag “RetGoals\_V1.psyxp” into PsychoPy Builder and it should open.A screenshot of a computer

  AI-generated content may be incorrect.
* Click on the green play button (without any sub-icons) to run the experiment. When you click it, it should open a dialogue box that allows you to enter the participant number and session number. Enter the participant number that is next on the participant tracking sheet. For the pilot participants, we are using “P” as a prefix to the participant numberA screenshot of a spreadsheet

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* Click “ok”, and the experiment should boot up. It may take a minute, then you will see the starting instructions screen.A grey background with white text

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**Once the Participant Arrives**

* Remind the participant that they will need to turn off and put away their phones, and that if they need to use the washroom, they should do it now before the experiment begins.
* Once they are ready, bring them to the testing room
  + Note that in the actual run of the experiment, we will have the consent process and demographics forms to have them fill out during this time. Since this is a volunteer piloting run, we will not have this at this time.
* Stand in the testing room with the participant as they read through the instructions. Let them know to ask you any questions that come up.
* After the initial instructions, they will go through instructions and practice for each task
  + External Attention: A grey screen with white text

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  + Internal Attention: A screenshot of a math task

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  + Encoding:

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**NOTE:** Make sure that the participant knows that with this task, there will be a short delay between when they press the button and when the next trial starts. This is intentional and meant to help them have as much time to learn the two items as possible. Remind them to try to only make one response.

* + Retrieval:

A screenshot of a memory task

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* As they go through the practice trials, make sure that they are making responses. At the end of each set of practice trials, they will see this messageA grey screen with white text

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* When this message comes up, ask them to describe the task they just went through to make sure that they understand the instructions properly. Answer any questions that they have or correct any misunderstandings that they may have, and then have them move on to the next practice.
* Once they complete the retrieval practice, you can leave the room and they will start the actual study.

**Once the Study is Complete**

* There are two questionnaires that we want participants to complete. They are printed out and placed on top of the cabinets in the main area of the lab. One is the media multitasking questionnaire, and one is a feedback form for how the pilot went. Please make sure they fill out both of these!
* Once they are done with filling out the questionnaires, ask if they have any questions, and then they are done!
* The last step is to go back to the testing room, open the “RetGoals\_pilot” folder, open the “data” folder, and make sure that there is a csv file with the participant ID on it that has the correct timestamp for the session that was just run. Close out PsychoPy, log out of the lab user account, and shut down the computer. You’re all done!