Using PsychoPy and Pavlovia

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Products (and links)

PsychoPy is a free and open source python installation that will run on MacOS, Windows, and Linux.

jsPsych is a JavaScript library for running behavioral experiments in a web browser.

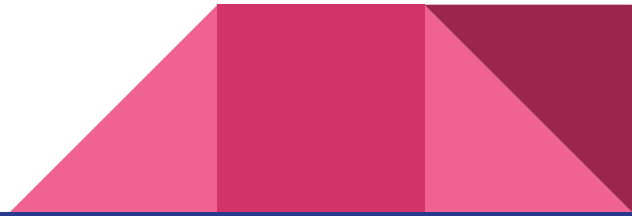
Pavlovia is an online platform that uses Gitlab to host experiments, launch and run studies, and store data securely. Experiments can run in any browser, play proprietary media, and most studies run on a mobile OS.

Some Benefits of this System

By running your experiment or study on Pavlovia, you can run the study online through **SONA**, on **M-Turk**, **Prolific**.

You can run a lab-based study in any location in WIRB on a laptop/desktop through the browser which simplifies the need to keep individual machines updated and maintained.

Data is stored securely on your Gitlab account



Setting up PsychoPy

Visit the PsychoPy page to install (https://www.psychopy.org/)

There are many ways to install, choose your favourite. I recommend the **standalone** unless you are deeply connected to another Python installation and editor.

MacOS and **Windows** are straightforward. I suppose Linux is also.

Setting up Pavlovia

Visit the Pavlovia page (https://pavlovia.org/) and create an account.

Use your @uwo.ca email: Western has a site license that will cover anyone using a uwo email adress.

Stephen or I *may* need to approve your account before you actually collect data.

Our Plan for Today

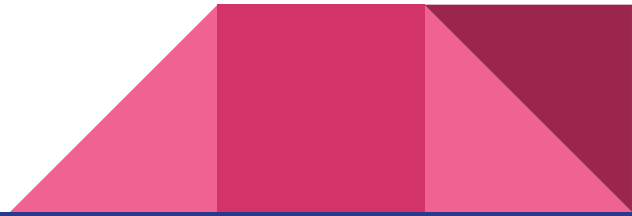
Paul will discuss **PsychoPy**

- how to create a basic stimulus display
- how to request input from a subject
- how to save data to a file
- how to push to Pavlovia

Bring a laptop so you can run Stephen's example experiments

Stephen will discuss **jsPsych**

- how to push to Pavlovia
- how to run a study on Pavlovia
- how to download and analyze data



Creating your first experiment

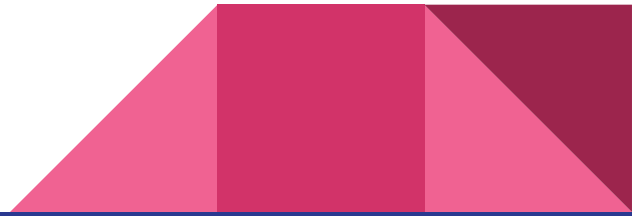
Builder View is rapid prototyping

- Drag & Drop
- Menu and Object driven
- Generates python code

Coder View is basic python coding

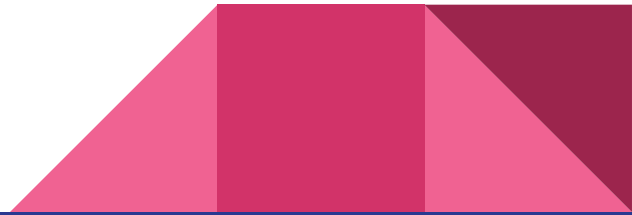
- Requires some python experience
- Cannot generate a builder script

You can build the same experiment in either Builder view or Coder view.



Some Starting Points

1. Sketch out the **logic** of your experiment first.
2. Create a **local folder** on your drive.
3. Include any **stimuli** you wish to use (images, files, etc) and ensure a consistent naming convention.
4. Create an **excel file** for any stimuli or parameters.
5. Launch **PsychoPy**
6. Check to see if you are logged into **Pavlovia**
7. Pull up a browser tab for PsychoPy **Documentation**, PsychoPy **forums**, and maybe **Stack Overflow**.



In PsychoPy

We’re going to build rating stimulus rating experiment and look at a simple category learning experiment. We’ll push to Pavlovia and run.

There are three ways to interface:

- **PsychoPy**
- **Pavlovia Dashboard**
- **Pavlovia Gitlab**

I’ll post the link here later