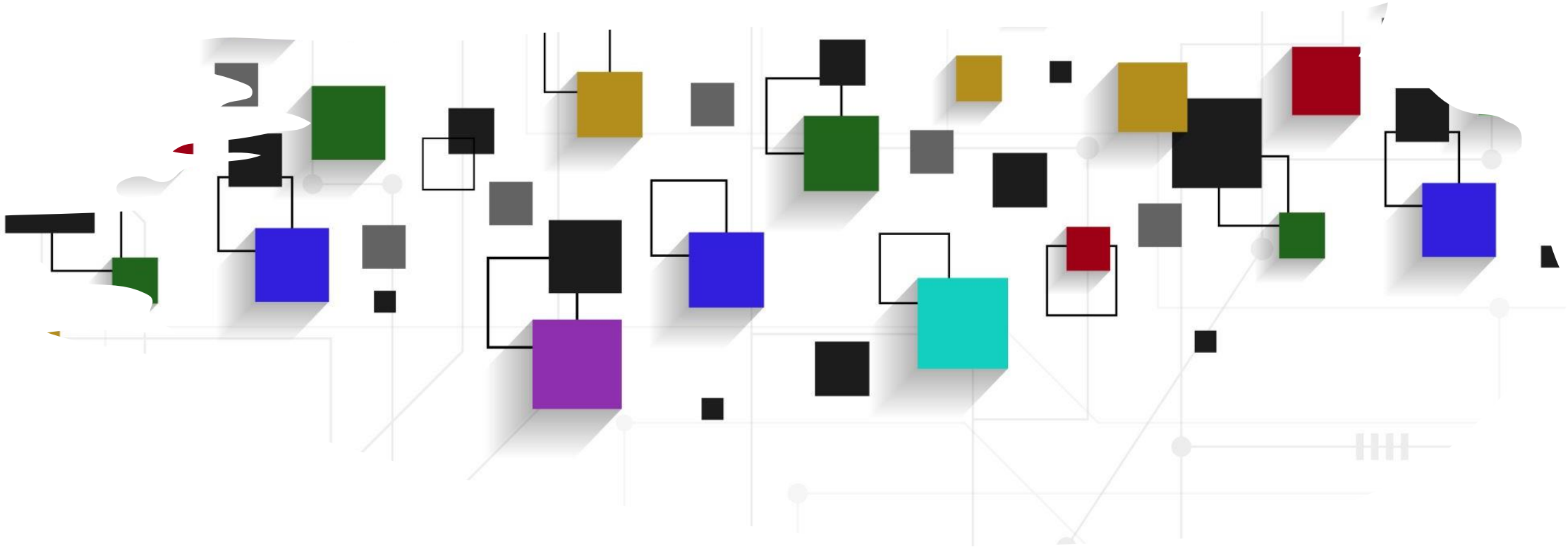


CogLab: Data Collection

WEEK 11

recap

- what we covered
  - preparing for data collection
- your to-do's
  - work on milestone #5 (checklist + pre-registration)

today's agenda

- piloting debrief
- analysis set up
- posting slots on Sona

piloting debrief

- what did you learn about your experiment?
- are there still issues to fix?
- anything that needs to change for pre-registration?

adding a progress bar to experiment

```
var jsPsych = initJsPsych({
    show_progress_bar: true
});
```

basic analysis pipeline (milestone #6a)

For this milestone, you will submit some R code to analyze the data you have collected so far in your project. If no data is available, you can use pilot/simulated data from your experiment to complete this milestone.

You will use the SAME repository you created in the previous milestone and simply add any changes/updates to this repository.

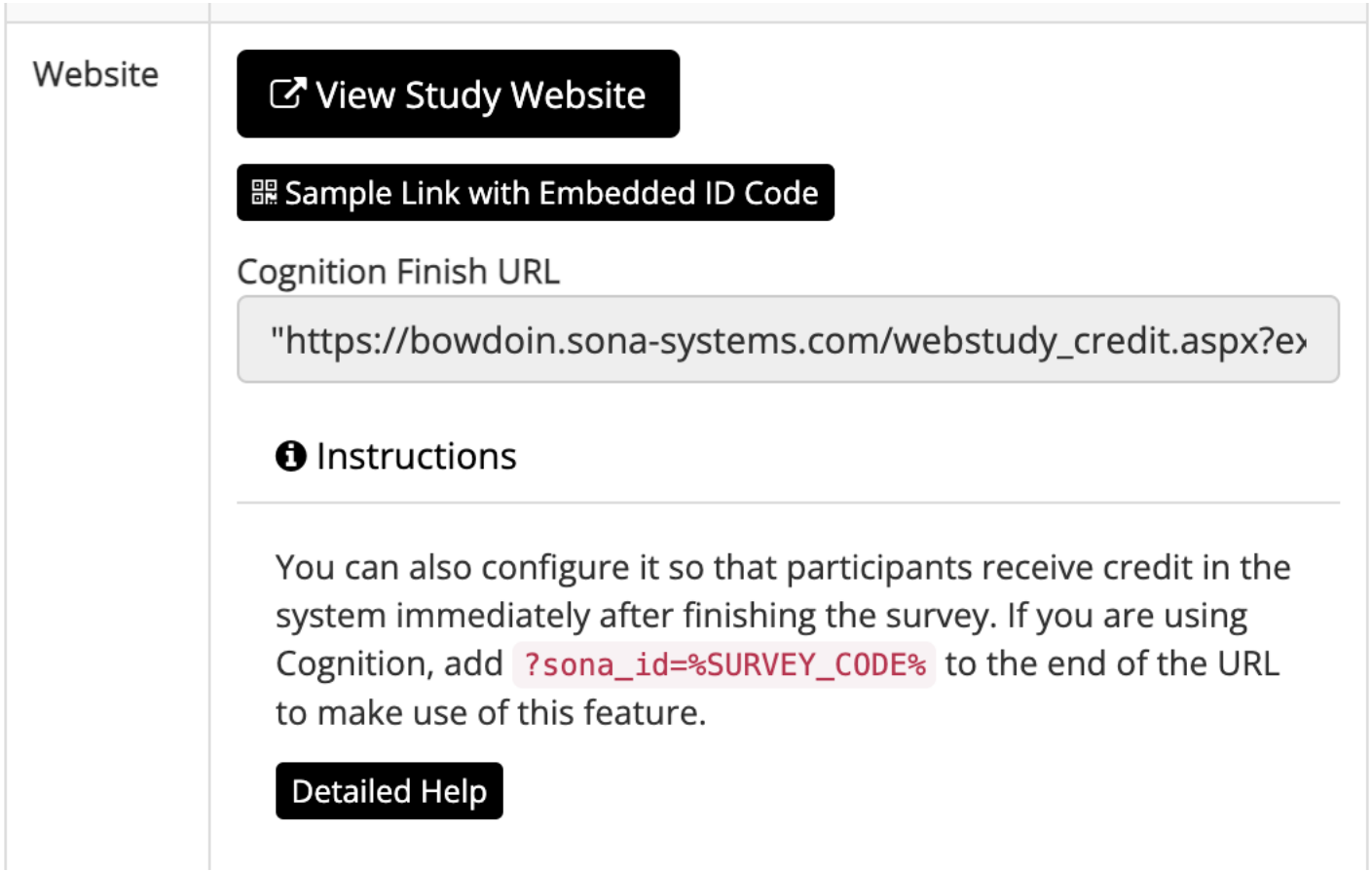
- Create a new folder inside your local repository called “data”. Inside this folder, you should store ONE/TWO .csv file(s) that contains ALL the data from your experiment across the two participant pools (Sona/Prolific).
- Next, create another folder inside your local repository named “analysis”. Create a new R project inside this repository and open a new R markdown notebook titled “analysis_groupname.Rmd”.
- In this .Rmd file, you should have the following sub-headings and code that answers the questions under each sub-heading:
    - # Install and load packages
        - Write code to install (if required) and load all necessary packages
    - # Import data
        - Import your experiment data into your notebook. This might include ONE (Sona / Prolific / pilot datA) or TWO CSV files (Sona + Prolific) at most.
    - # Inspect data
        - How many rows and columns are in your file?
        - How many unique “subjects” does this file have? How many trials did each subject do in this experiment?
        - Which columns contain your independent variable(s) and dependent variable(s)?
        - How many levels do your independent variables have?
    - # Basic descriptives
        - Describe the demographics of your sample (mean age + std deviation, gender distribution, race distribution, years of education)
        - What is the average accuracy in your experiment? What is the standard deviation of the accuracy?
        - What does the histogram of reaction times look like in your experiment for the critical trials?
    - # Inferential statistics
        - What is/are your primary research question(s)?
        - Apply any exclusions you specified in your pre-registration to your RT data.
        - Draw a bar plot showing the reaction times as a function of your independent variable(s).
        - Describe the pattern you are observing.
        - Use a (combination of) statistical test(s) to draw inferences about your results.
- Save your file locally and then push them to the repository online.

sona data collection plan

- pre-register on aspredicted.org (after milestone #5)
- ~~create a Sona study~~
- ~~add disqualifiers to your study~~
- ~~add survey code to cognition.run study URL in Sona~~
- ~~modify cognition.run initJsPsych~~
- ~~send approval request to Donna~~
- post 10 timeslots
- start working on project analyses!

go to cognition.run

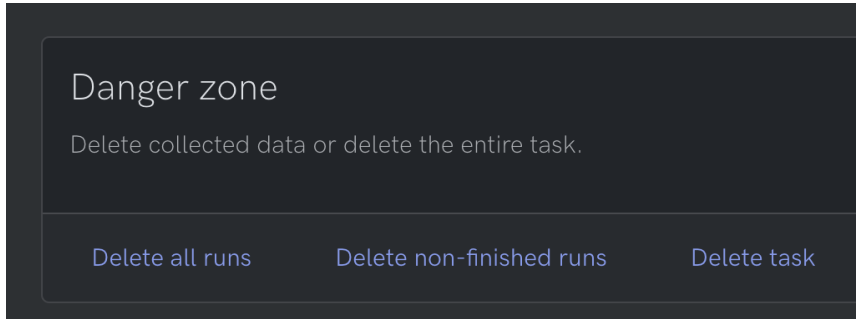
copy cognition finish URL



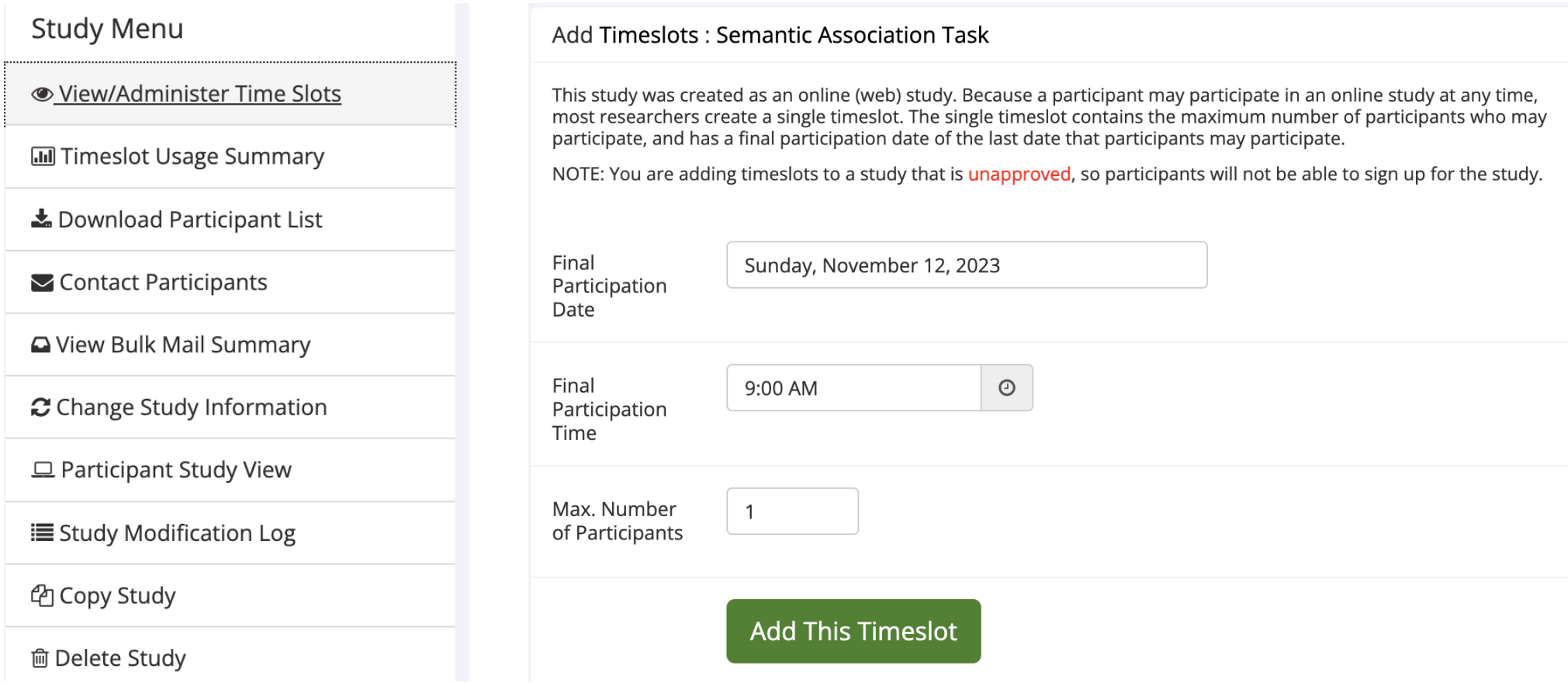
change initJsPsych within cognition.run

```
const jsPsych = initJsPsych({
    show_progress_bar: true,
    auto_update_progress_bar: false,

    on_finish: function(data){

      let sona_id = jsPsych.data.urlVariables()['sona_id']
      window.location.assign("https://bowdoin.sona-systems.com/webstudy_credit.aspx?experiment_id=218&credit_token=ecd1a56cc7194604ba296e8e927f57ac&survey_code=" +sona_id)
    }

    });
```

delete all runs so far!



add timeslot



next time

- **before** class
  - *monitor:* data collection on Sona
- **during** class
  - *monitor:* data collection on Sona
  - *start:* prolific data collection