

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 <u>aspredicted.org</u> (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

Website C View Study Website 器 Sample Link with Embedded ID Code **Cognition Finish URL** "https://bowdoin.sona-systems.com/webstudy_credit.aspx?e> Instructions You can also configure it so that participants receive credit in the system immediately after finishing the survey. If you are using Cognition, add **?sona_id=%SURVEY_CODE%** to the end of the URL to make use of this feature. Detailed Help

change initJsPsych within cognition.run

const jsPsych = initJsPsych({
show_progress_bar: true,
auto_update_progress_bar: false,
<pre>on_finish: function(data){</pre>
<pre>let sona_id = jsPsych.data.urlVariables()['sona_id']</pre>
window.location.assign("https://bowdoin.sona-systems.com/webstudy_credit.aspx?experiment_id=218&credit_token=ecd1a56cc7194604ba296e8e927f57ac&survey_code=" +sona_id)
}
<pre>});</pre>

delete all runs so far!

Danger zone		
Delete collected data	or delete the entire task.	
Delete all runs	Delete non-finished runs	Delete task

add timeslot

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Add Timeslots : Semantic Association Task

This study was created as an online (web) study. Because a participant may participate in an online study at any time, most researchers create a single timeslot. The single timeslot contains the maximum number of participants who may participate, and has a final participation date of the last date that participants may participate.

NOTE: You are adding timeslots to a study that is unapproved, so participants will not be able to sign up for the study.

Final Participation Date	Sunday, November 12, 2023
Final Participation Time	9:00 AM
Max. Number of Participants	1
	Add This Timeslot



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