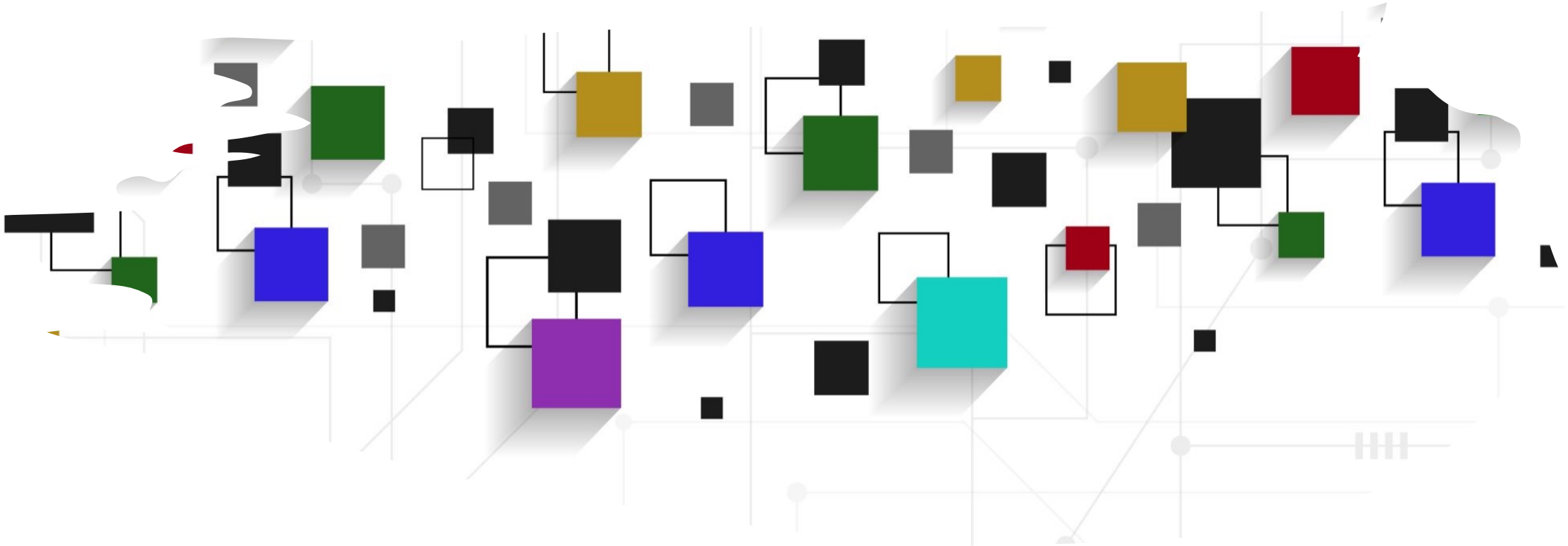


CogLab: Data Collection

WEEK 13

coming up

13	Thursday, November 23, 2023	**THANKSGIVING BREAK!!! NO CLASS**
14	Tuesday, November 28, 2023	W14: Odds and Ends
14	Wednesday, November 29, 2023	**Project Milestone #7 (Analyses) Due**
14	Thursday, November 30, 2023	W14 continued…
14	Sunday, December 3, 2023	**Project Milestone #8 (Poster Draft) Due**
15	Tuesday, December 5, 2023	W15: Wrapping Up
15	Thursday, December 7, 2023	**Project Milestone #9 (Poster Symposium) Due**
16	Sunday, December 17, 2023	**Project Milestone #10 (Final Report) Due**

today's agenda

- formative assignment #3 check-in
- data collection check-in
- prolific-ready study
- poster design principles

formative assignment #3

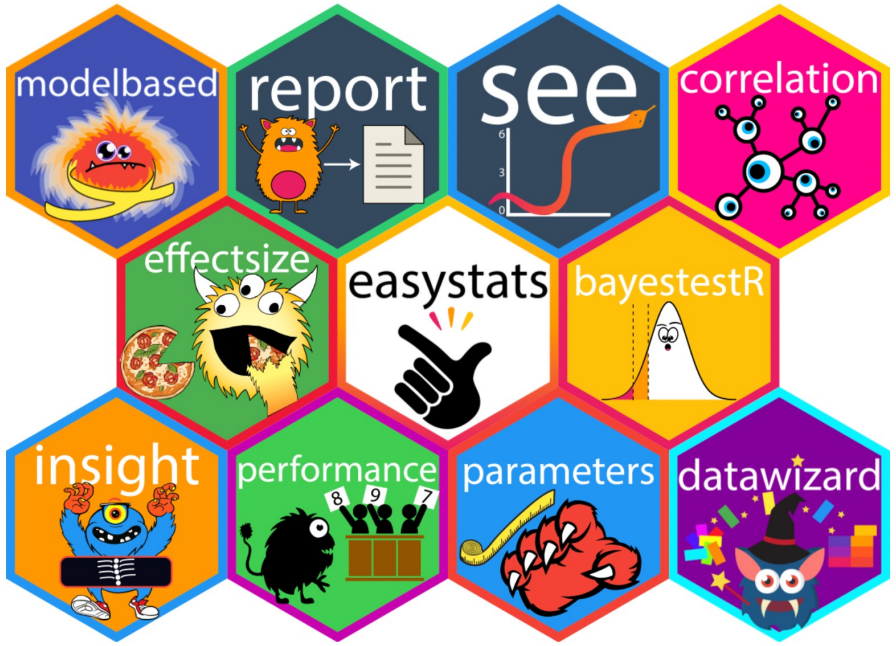
- the data are non-independent
- therefore, all models need to be lmer()
- resubmission deadline is Nov 28 midnight

easystats universe

What is *easystats*?

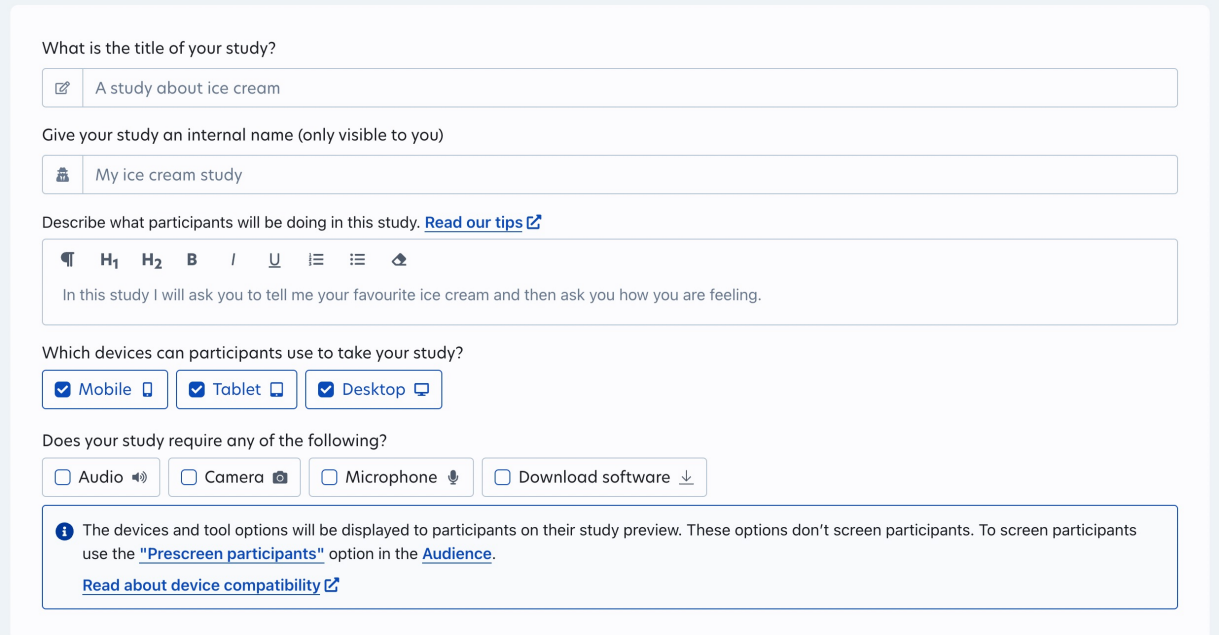
easystats is a collection of R packages, which aims to provide a unifying and consistent framework to tame, discipline, and harness the scary R statistics and their pesky models.

However, there is not (yet) an *unique* "easystats" way of doing data analysis. Instead, start with one package and, when you'll face a new challenge, do check if there is an *easystats* answer for it in other packages. You will slowly uncover how using them together facilitates your life. And, who knows, you might even end up using them all.



go to prolific.co

- a team member was sent an invite to the psyc2740-23 workspace on prolific
- create a new study: same name as Sona
- description same as longer description on Sona
- only check Desktop



data collection

DATA COLLECTION

How do you want to collect your data?

Find out about common survey, experiment, cloud based and open-source integration options.

External study link
Provide your own URL

Survey builder (beta)
Create surveys with up to five questions on Prolific

How to record Prolific IDs

To link answers in your survey tool to participants in Prolific, you'll need to set up your survey tool to record our participants' unique Prolific IDs.

This enables you to match our participant demographic data with their answers. If you receive a poor quality submission, you can also reject it in our platform.

What is the URL of your study?

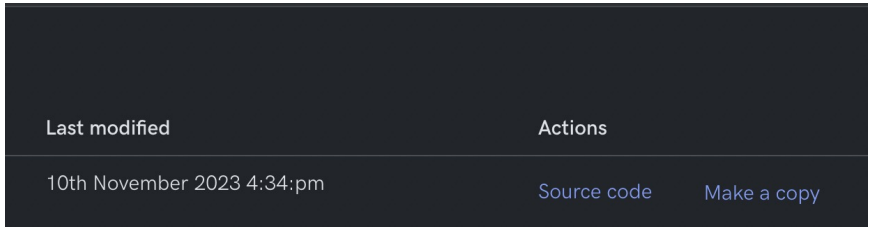
https://my-awesome-ice-cream-study.com

How do you want to record Prolific IDs? *(Select an option below for instructions)*

- ◯ I'll add a question in my study
- ◯ I'll use URL parameters
- ◯ I don't need to record these

open cognition.run

- make a copy of your Sona study
- rename the study to indicate it is the prolific version

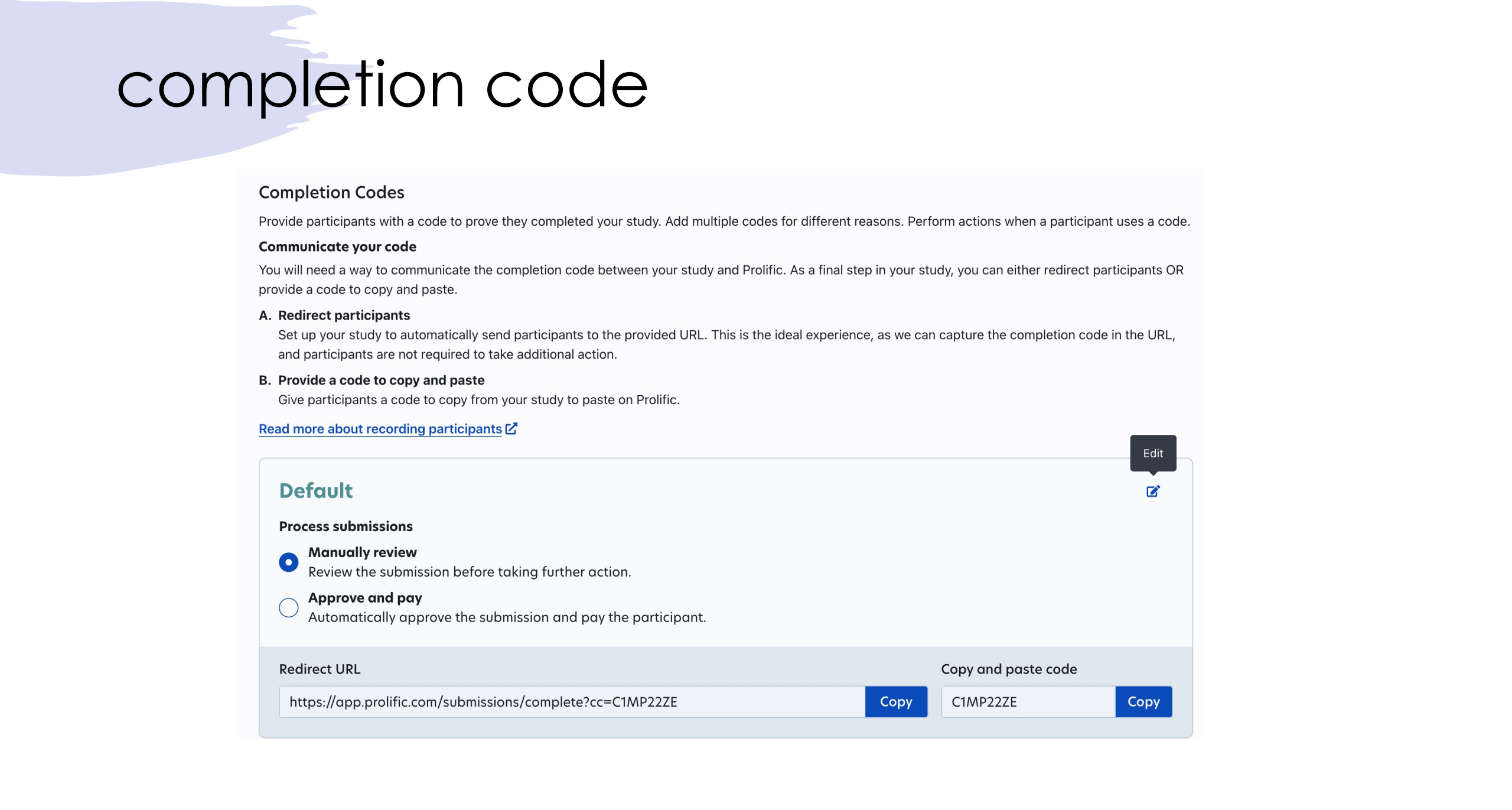


modify source code for prolific study

- record prolific IDs via a new plugin
- copy code from this document
- add the prolific_id trial at the beginning of your jsPsych.run() statement(s)

```
var prolific_id = {
    type: jsPsychSurveyText,
    preamble: "Welcome to the study!",
    questions: [
        {
            prompt: "Before you begin, please copy your unique Prolific ID and paste it in the box below",
            required: true,
            name: "prolific_id"}
    ],
    data: {
        type_of_trial: "prolific_id",
            },
    on_finish: function(data) {
                data.response = data.response.prolific_id;
        }
}
```

completion code

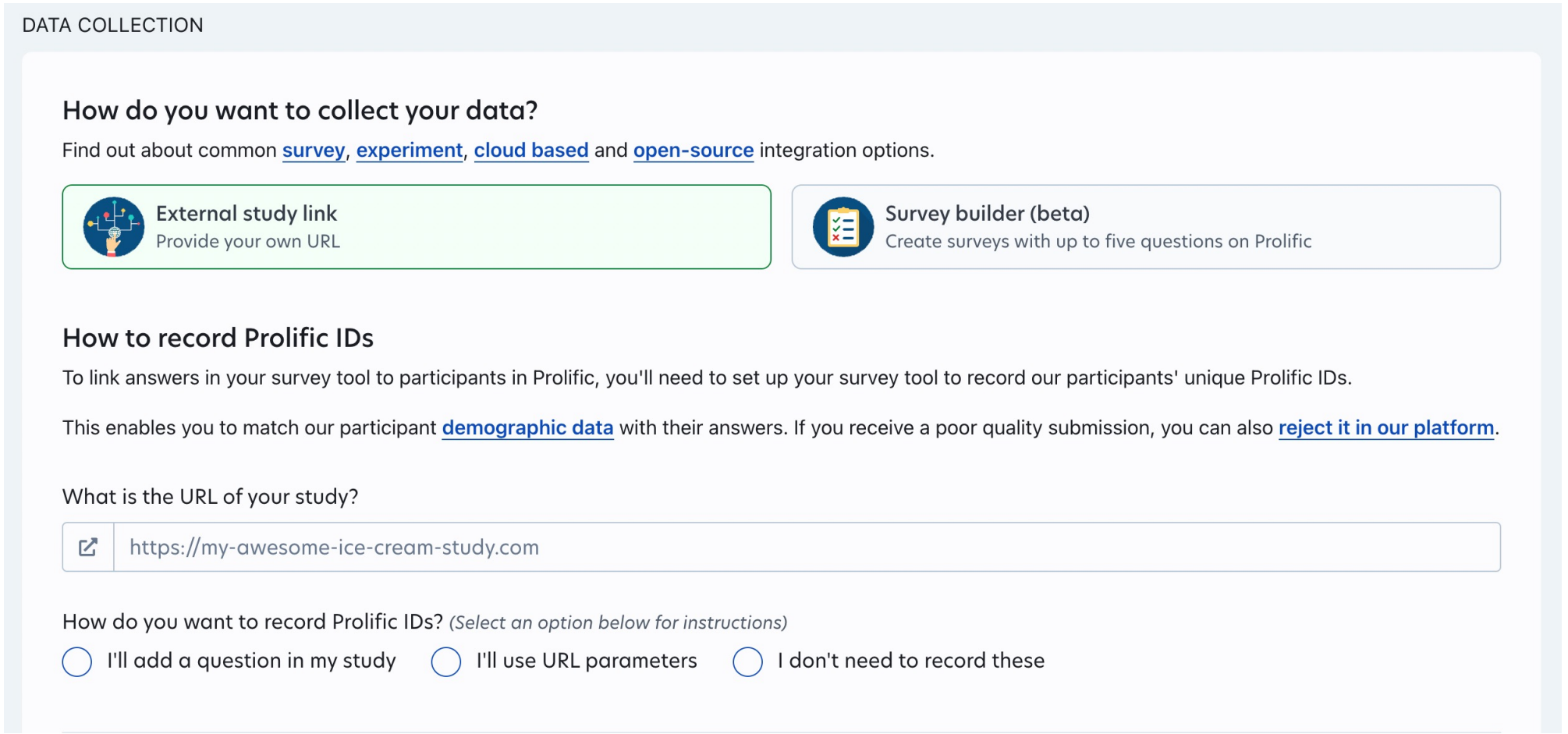


completion codes within cognition.run

- modify your thank_you plugin trial/screen
- copy code from this document
- replace XXXXX with the completion code within prolific

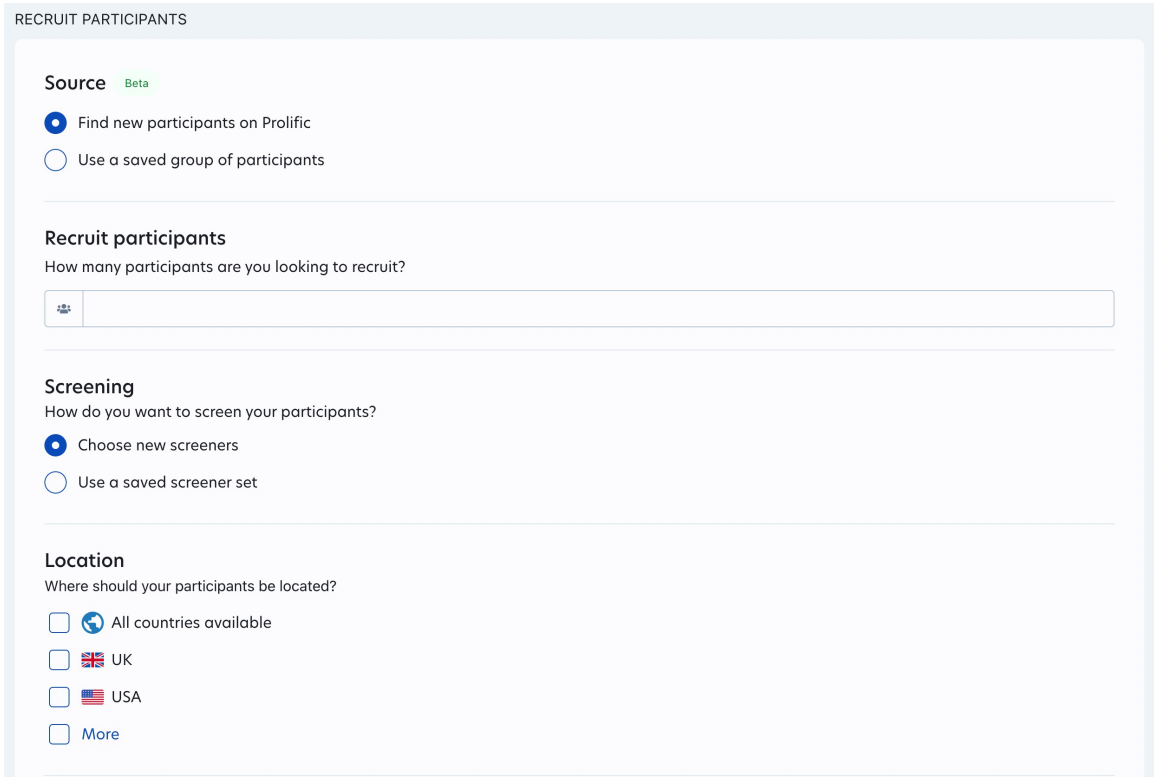
```
var thank_you = {
 type: jsPsychHtmlKeyboardResponse,
 stimulus: `<p>You've finished the last task. Thanks for participating!</
 If you want to learn more about this study, feel free to read this <a ta
            which explains the purpose and theory behind this research, an
            <br><br>
 <p><a href="https://app.prolific.co/submissions/complete?cc=XXXXXXX">Cli

    </p>`,
 choices: "NO_KEYS",
 data: {
        typeoftrial: 'thank_you'
    },
}
```

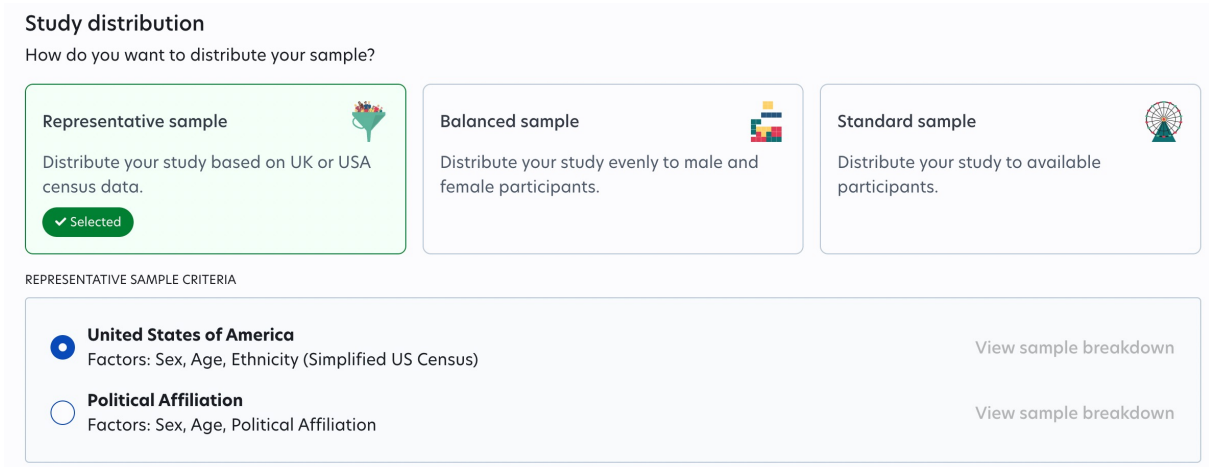
enter new cognition.run link



sample

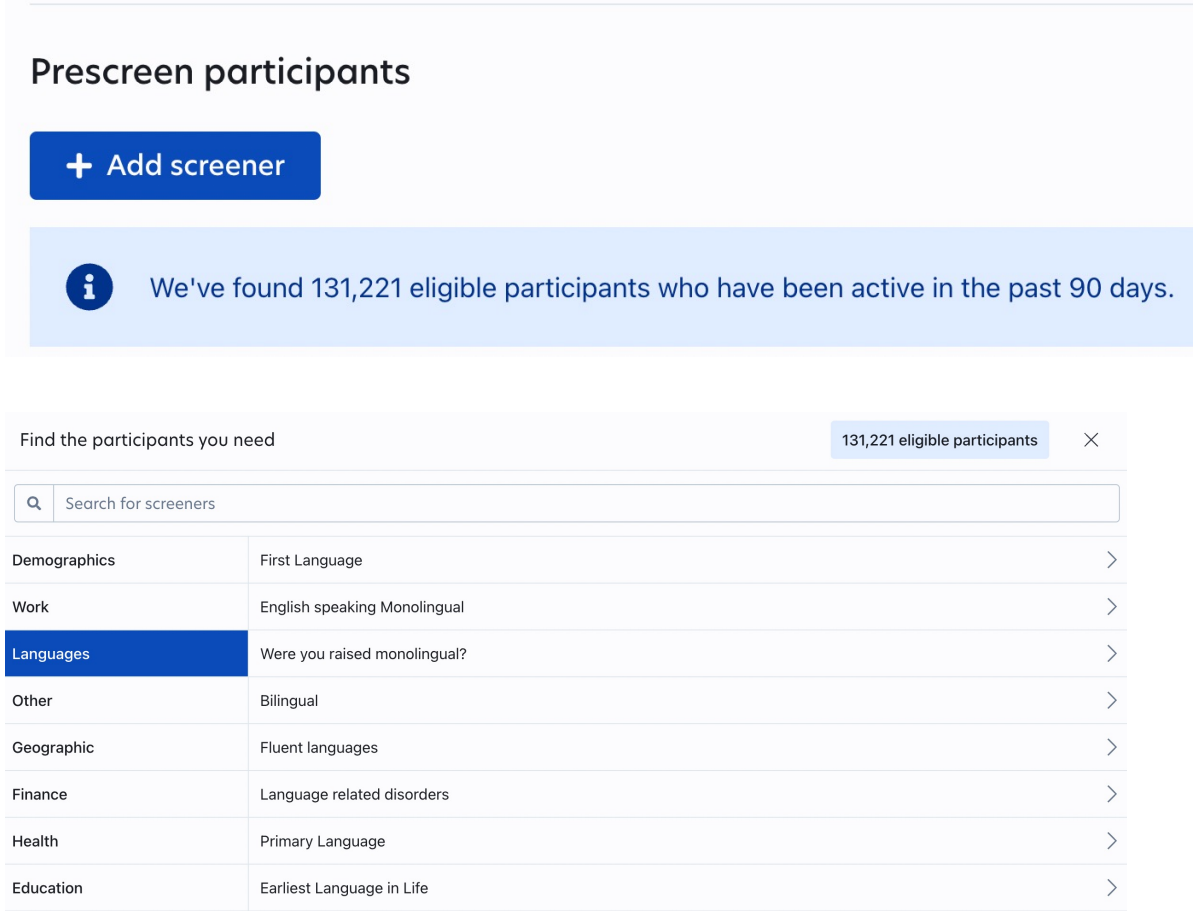
- 85 participants
- USA participants
- standard sample





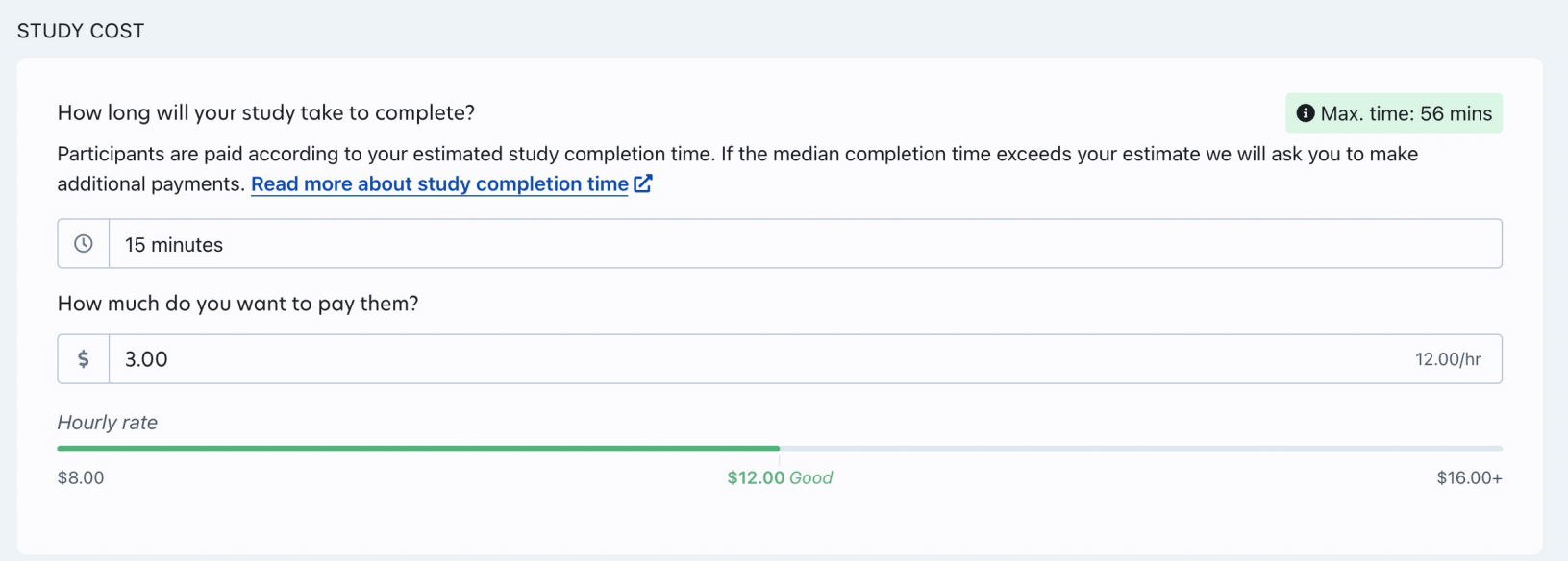
screener

- select first language english



payment

- 15 minutes
- $3.00



review

publish!!

designing a poster

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SAGE

The Science of Visual Data Communication: What Works

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Abstract

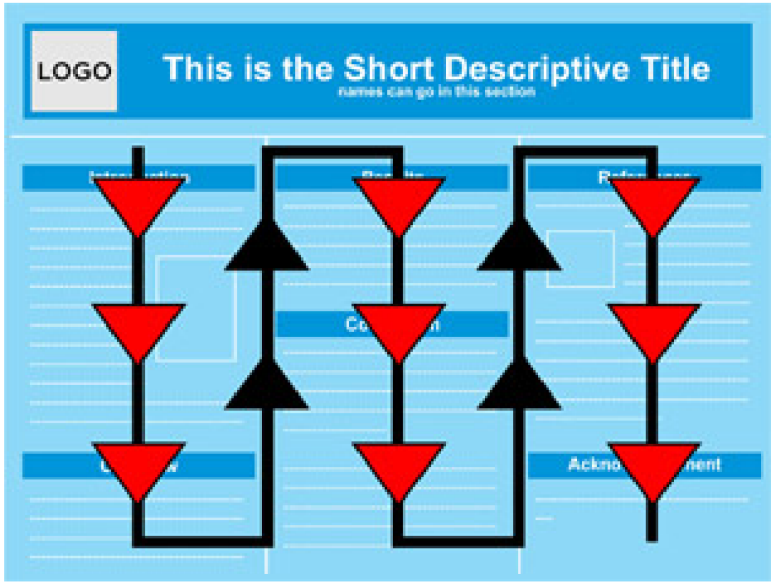
Effectively designed data visualizations allow viewers to use their powerful visual systems to understand patterns in data across science, education, health, and public policy. But ineffectively designed visualizations can cause confusion, misunderstanding, or even distrust—especially among viewers with low graphical literacy. We review research-backed guidelines for creating effective and intuitive visualizations oriented toward communicating data to students, coworkers, and the general public. We describe how the visual system can quickly extract broad statistics from a display, whereas poorly designed displays can lead to misperceptions and illusions. Extracting global statistics is fast, but comparing between subsets of values is slow. Effective graphics avoid taxing working memory, guide attention, and respect familiar conventions. Data visualizations can play a critical role in teaching and communication, provided that designers tailor those visualizations to their audience.

poster draft

- general tips:
  - de-clutter, keep the text to a minimum
  - use tables/figures wherever possible (procedure, results, etc.)
  - use symmetry and colors to guide the reader
  - think of what you will say and organize in a logical manner
- sample posters/resources up on course website

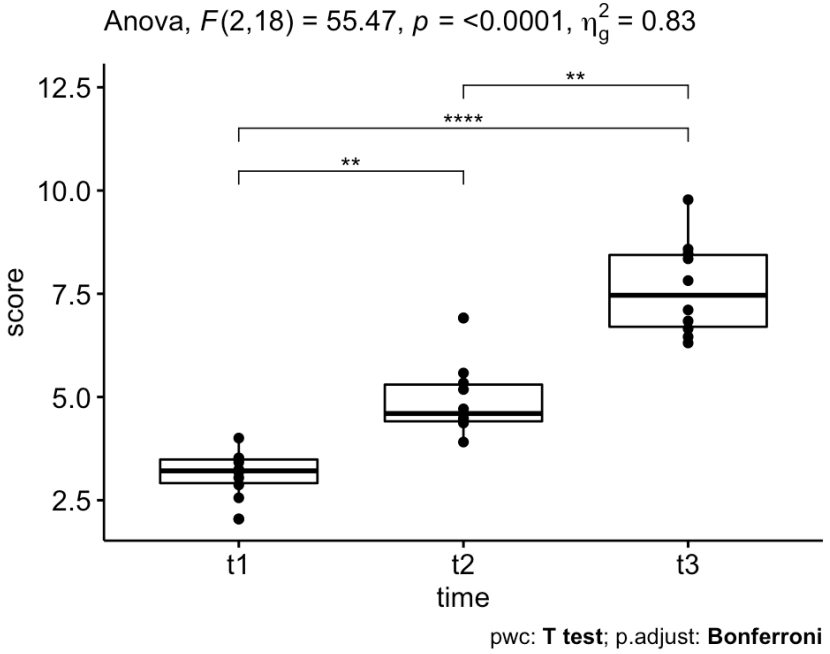
poster contents

- introduction
  - why is this topic important, what can we learn?
  - background & current research question
  - ideas: venn diagrams, smart art, etc.
- methods
  - IV/DV, items, counterbalancing etc.
  - ideas: design figure, sample trial, etc.
- analysis
  - statistical tests & results, inclusion/exclusion criteria, etc
  - ideas: tables, datanovia figure with p-values, regular figure
- conclusion / future steps
  - small and picture: what did you learn? where do you see it going?



statistics in posters

- less text, more images & numbers
- use the same format to report statistics but edit out all the text and point to figures



next time

- **before** class
  - *complete:* Week 13 quiz (inferences, due Nov 28)
  - *monitor:* data collection on Sona + Prolific
  - *work on:* project milestone #7 (analyses, due Nov 29)
- **during** class (Nov 28)
  - understand and plotting variation
  - poster design