PSYCH 10 Final Project · Fall 2026

Week 9 · M8 · Your report and your poster

Full name (in CAPITAL LETTERS) _____ **SUNet ID** (the part before @stanford.edu) _____ **Section** (e.g., TUES 9:30) _____

Please write legibly so the teaching team can log your attendance: if we can't read your name, we can't give you credit.

Please hand this sheet in to your TA at the end of section (each student should hand in their own copy). A copy is on the course website (psych10.github.io).

Where this milestone fits

In M7, your group made finished figures and started your poster. In M8, you will start your final report and fill in the rest of your poster. The final report is a short scientific paper, about 1,500 to 2,000 words long, in APA style: the format that the American Psychological Association sets for papers in psychology (title page, headings, citations, references, figures). The report template already applies that format, and apastyle.apa.org explains it, with sample papers. Your group has already done most of the work for each section in the earlier milestones:

- **Introduction:** your claim or background, your two questions, your hypothesis, and your DGPs (M4).
- **Method:** your data source, each step in `prepare-data.R`, and your variables (M5); your model (M6).
- **Results:** your question 1 model, its strength, and the shuffled `b1`s (M6); your answer to question 2 (see below); your figures (M7).
- **Discussion:** your hypothesis compared with your result, the DGPs that remain plausible, one limitation, and your take-home sentence.
- **References** and an **Appendix**, which holds the histogram of your shuffled `b1`s, your data preparation code, and your AI use statement.

The report template

The template for the report is the file `report.Rmd`, on the course website. The template contains the section headings, the code chunks (written for the `Fingers` data from CourseKata), and a numbered prompt for each part of the text, from I.1 in the Introduction to D.4 in the Discussion. A placeholder, `[...]`, follows each prompt; please replace each placeholder with your group's own text.

Each prompt is written as a comment (between `<!--` and `-->`), and comments do not appear in the knit PDF. A reader of the PDF will see only your text, your code, and the output of your code. Please therefore write connected paragraphs that a reader can follow without the prompts, as in a published paper, and not a list of answers. Please also write for a reader who has not taken PSYCH 10. That reader does not know the terms from this course, so please explain each term in everyday words at its first use (for example, DGP, `b1`, and PRE), and report every number with its units ("6.4 mm", not "6.4").

Two ways to answer question 2

Question 2 asks whether another variable helps account for the question 1 relationship. Your group will answer question 2 in one of two ways, under prompt R.6, and both ways can earn full points:

- **If that variable is in your dataset:** an analysis. Report `b1` for the question 1 model within each group of the variable, and include Figure 2.
- **If that variable is not in your dataset:** a written answer, with no analysis and no Figure 2. Your group does not need more data. Please name the variable that you would need, describe how a study could measure that variable, describe the pattern that you would expect to see, and explain why that pattern would help you decide between your DGPs.

Deliverables

Your group should hand in work in two places by Sunday, Nov 22, at 11:59 pm:

- **On Gradescope** (the link is on Canvas): `report.Rmd` and the PDF made by knitting that file. One member should upload both files and add the other members to the submission.
- **In your group's shared Google Drive folder:** `report.Rmd`, in the `report/` folder, and your poster.

The M8 submission is a first draft: only the parts in the M8 rubric are graded this week. The poster file is due on Monday, Dec 7, and the final report on Tuesday, Dec 8.

Steps (steps 1 to 3 in section; the remaining steps before Sunday)

1. **Get the latest version of your folder.** Download your group's shared folder from Google Drive, and then download `report.Rmd` from the course website into the `report/` folder. Near the top of the file, fill in the title, your names, and your section leader's name.
2. **Write the Introduction first** (prompts I.1 to I.3), because every later section refers to the questions and DGPs in the Introduction. Please state the claim or background that motivated your project, with a citation (I.1); your first question, your hypothesis, and the DGP that you think produced the relationship (I.2); and at least two other DGPs, your second question, and one sentence on your main finding (I.3).
3. **Make every code chunk run on your data.** In the `data` chunk, remove the `#` from the two lines that run `prepare-data.R` and read your processed data, and delete the line `processed <- Fingers`. In every later chunk, replace `Thumb` (the outcome), `Sex` (the explanatory variable), and `Job` (the question 2 variable) with your own variables. You may copy your model and shuffling code from M6 and your figure code from M7. If your question 2 variable is not in your dataset, delete the two question 2 chunks. Then knit the file and correct each error.
4. **Write the rest of the report,** using the output of your code: the Method, the text below each chunk in the Results, the Discussion, the references in APA format, and the AI use statement. Every number in your text should equal the number in your output. These sections are not graded in M8, so please finish any incomplete section before Dec 8.
5. **Fill in the rest of your poster.** In M7, your group filled in the title, your two questions, and each figure with its take-home sentence. Please now fill in the remaining parts, using the text of your report: the claim and its source, the Methods, the Figure 1 caption, the three numbers under Figure 1 (`b1`, PRE, and the number of shuffled `b1`s at least as far from 0 as your `b1`), the Discussion, the Limitations, and the line for your data source, your references, and your AI tools. If your group has no Figure 2, your written answer to question 2 takes the place of Figure 2. The speaker notes under slide 1 give the word limit for each part. **Your group will give a practice presentation of your poster in your next section (Week 10, after Thanksgiving),** so please bring a poster that is as complete as possible.
6. **Knit to PDF in a fresh session** (Session → Restart R, then Knit → Knit to PDF). One member should submit the `.Rmd` and the PDF on Gradescope and add the other members to the submission. Then upload `report.Rmd` to the shared folder.

Using AI tools on the report

For the report, you may use an AI tool to help you write code, format tables and figures, put your references in APA format, and suggest edits to sentences that your group has written. Please write the interpretation of your results, in the Results and in the Discussion, in your group's own words. Every member of the group should be able to explain every number and every line of code in the report.

How M8 is graded (2 points)

	Points
The title page and the Introduction (prompts I.1 to I.3), written as connected paragraphs	0.6
Every code chunk runs on your group's data, and `report.Rmd` knits to PDF	0.8
The remaining parts of your poster, filled in as listed in step 5	0.6

How the final report is graded (due Dec 8; 40 points, 7% of the course grade)

	Prompt	Points
Introduction	I.1 The claim or background that motivated the project, with a citation	2
	I.2 Question 1; your hypothesis (direction and rough size, in the outcome's units); your DGP	3
	I.3 At least two other DGPs; question 2; one sentence on your main finding	2
Method	M.1 Data source, cited: who collected the data, when, and how; what one row represents; the sample	3
	M.2 Data preparation: each step in `prepare-data.R`, with the reason for that step	2
	M.3 Measures: each variable, the quantity it measures, and its units or categories	2
	M.4 Analysis: your model; your evidence about strength and about chance; your approach to question 2	2
Results	R.1 A table of summary statistics, described in one sentence	1
	R.2 Figure 1, finished, and cited in the text with its take-home sentence	2
	R.3 `b0` and `b1`, each interpreted in a sentence with its number and units	3
	R.4 PRE, F, and the p-value from `supernova()`, in APA format, explained in everyday words	3
	R.5 The proportion of shuffled `b1`s at least as far from 0 as yours, compared with p; the 95% confidence interval	3
	R.6 Question 2: the analysis with Figure 2, or the written answer (either way, as described on page 1)	3
Discussion	D.1 Your hypothesis compared with your result, with both numbers	2
	D.2 The DGPs your results support, rule out, or cannot distinguish, with the evidence for each	3
	D.3 One meaningful limitation, and a follow-up study that would address that limitation	2
	D.4 Your take-home sentence: direction, size, and uncertainty, limited to the people or places in your data	2

The references and the AI use statement are required. A report that lacks either one, does not knit, or reads as a list of answers may lose up to 2 points.