

Initial Project Proposal (5%; due on Oct 2nd by start of class)

This course has a final project component. In this initial assignment, you will propose a research study to conduct while the course proceeds. The proposal has two parts:

- **In-class presentation** (plan for ~8 minutes presentation, 5 min discussion)
- **Proposal in written form** (format below)

Write the proposal first, and then create the presentation from it, with similar sections.

A reminder is that the study must involve an **experiment** and have **mixed methods** design (i.e., a mix of quantitative and qualitative methods). An experiment has at least one independent variable that is controlled by the research team (often this is a “condition,” but does not need to be). You are also requested to have *more than one* measure (dependent variable); ideally several. You may have more than one independent variable, too, although only add more if it makes sense for your research question. Your research hypothesis should be non-obvious and compelling. Remember, you will spend a lot of time on this project, and you want to make it exciting and motivating for yourself, not just others.

Keep in mind that real research, methods follow from research questions, not vice-versa. You should base your study design on what your research questions are. However, you must run an experiment, and so you need to choose research questions that would reasonably be addressed by an experimental study design (i.e., rather than a purely qualitative study). And, you are limited by time and resources more than usual: you may consider giving participants compensation, but this class won't provide any monetary support, so you'll likely have to recruit people without compensation, which can be harder. (If you have a professor/advisor and are working on a project directly relevant to your thesis, ask them for support.)

The challenge of this course is that at this moment, you don't yet have all the skills required to plan, implement, and analyze a robust experiment. That's okay. Don't worry about analysis just yet. In the coming weeks, we'll discuss and practice qualitative and quantitative methods. You will only implement (carry out) your study in the back half of the course, once you have this practice. Plan to carry it out in November.

Finally, the goal of this assignment is to draft your study plan to present it for initial feedback, not devise all the materials you actually need to carry it out. So be concise but don't go overboard. In the next assignment, you'll get a chance to present more detailed study protocol.

The written proposal should have the following sections and address the following questions:

Name(s) of Project Members, and a Team Name

Project Abstract (2 paragraphs)

In this section, provide a broad overview of your project, research questions or hypotheses, a brief description of methods, and what makes it a compelling topic.

Project Goals and Research Hypotheses (~2 paragraphs)

- What are your goals with conducting this study? What do you hope to learn? Explain in one paragraph.
- What are your research questions and/or hypotheses? *Be as specific as possible.* If a hypothesis will be tested with quantitative measures, ensure the hypothesis is testable and realistic. Bold your questions and hypotheses. If it makes sense, you may place them in a numbered list.

Study Design (address individual questions below, one-by-one)

For this section, you might also consider filling out questions from the “Study Design Sprint” exercise form.

- What methods will you use and why? (E.g., between-subjects, within-subjects, or a more complicated design?)
- Who will participate and why? How will they be recruited?
- How many participants will there be and why?
- How long will the study take for one participant?
- Estimate of study cost, in terms of time and money?
- What are the independent and dependent variables?
- What are the measures (how will dependent variables be measured)
- How will the data be collected?

Threats to validity (1-2 paragraphs)

In 1-2 paragraphs, describe the limitations of your study and any threats to validity. Justify why you couldn’t reasonably address these threats within the current limitations of the course.

From this completed proposal, create an 8-minute slide presentation that you plan to present to the group, covering all these basic questions/aspects of your study design for feedback.

The instructor will grade your submission on the following metrics:

- ***Completeness:*** *Is the write-up complete? (i.e., you have responded to the above questions)*
- ***Realisticness:*** *How realistic is the research study within the timeframe of the course?*

- **Appropriateness:** *How appropriate are the chosen methods to address the hypotheses?*
- **Anticipation of Threats to Validity:** *Does the study design consider and realistically hedge against some possible threats to validity?*
- **Interestingness:** *How compelling are the research question(s)/hypotheses?*
- **Conciseness:** *Is the study described concisely? (i.e., please do not submit really long write-ups right now! :)*
- **Presentation:** *Did you give a reasonable presentation on your study in class?*