

Project Guidelines

Overview

This semester, you will design, conduct, and report the results of a psychological study. The study may be on any psychological topic you wish and may use any of the following research strategies: laboratory experiment, questionnaire, field study, naturalistic observation (observing without interfering), or archival research (e.g., examining the relation between average city temperature and homicide rate). To make the project more manageable and give you feedback along the way, I have divided it into several pieces. Each piece is due on a particular day (check the course schedule) and will be graded. These pieces are described below.

First Hypothesis

A hypothesis is a testable prediction – a statement of the specific pattern of results you expect. It is not a question but rather a statement. For example, “Extroverts can name more friends in a 5-minute interval than introverts can” is a hypothesis. “Do extroverts have more friends than introverts?” is a research question, not a hypothesis.

Structure your hypothesis 1 assignment in the following way: 1) Give the research question, 2) Describe your procedure, 3) Give your hypothesis, 4) Justify your hypothesis: *Why* do you predict this? Note: It is absolutely essential that you have a clear justification for your hypothesis, so spend some time thinking about it. You may have several justifications.

Common error: Beginning researchers commonly neglect to specify both sides of a comparison, for example writing “Students with high self-esteem will perform better on exams.” Correct style would continue this sentence with “...than students with low self-esteem.”

Some tips on how to find a hypothesis: 1) pick something relevant to your life (e.g., factors contributing to life satisfaction among college students such as roommate match, social life, grades, sleep schedule, etc.), 2) look at possible legal/courtroom issues (e.g., effect of gruesome photo on verdict, eyewitness testimony, etc.), 3) browse through some of your psych textbooks, 4) pay attention to the people around you and look for “why do people act this way” possibilities.

In grading your hypothesis, I will be looking at 1) plausibility (does the hypothesis and justification make sense), 2) specificity (the more specific and concrete the better), 3) clarity, and 4) originality and creativity.

Final Hypothesis

Re-write the first draft of your hypothesis based on the feedback you received and new ideas you’ve developed. You may completely abandon your original hypothesis.

Hypothesis and Five References with Abstracts

Give your hypothesis at the top of the page and then use PsycINFO (through EBSCOhost) to locate five professional psychology journal articles or book chapters that you are likely to use in your paper. Submit the references and abstracts for these. The references should be in APA style. You should also copy and paste the “persistent link to this article” or “Permalink” link from the PsycINFO reference (note: this is not the address in your browser address bar). Your grade on this assignment will depend in part on how well-chosen your references are. Pick articles that are as relevant to your topic as possible. Indicate which of these items are unavailable through Duggan Library and state that you have completed inter-library loan (ILL) request forms for them (assuming you have done so).

Human Subjects Application

Any study that will use humans as participants must submit a human subjects application and have it approved prior to data collection. Only one application should be submitted per group. The link to the application form is available on the course homepage. The application requires a complete informed consent form, debriefing form, description of your procedure, and any stimulus materials you will be using. Your grade will be based on the thoroughness and clarity of the first draft of your application.

Pilot Study

After your human subjects application has been approved, schedule a pilot study in which two of your friends play the role of participants. Afterward, ask them about the study: was anything unclear? Did they figure out what your hypothesis was? Write up a 250-500 word report describing what you learned from the pilot study and any changes you think will be necessary and email it to me (if you share it on Google Drive, it might take me longer to notice it). ***Do not begin data collection until after you have submitted a pilot study report and received my reply.***

Outline of Intro

Write an outline describing how you will structure the Introduction section of your paper. Use a formal outline structure (I. A. 1. a., etc.). To do this in Google Documents, select Format -> List Styles and select the Roman numeral option (I, II, III). If you type a sentence and hit return, the next line will automatically have the next number. If you hit the Tab key, it will change to the next lower level. If you hit Shift and Tab, it will take you back up to a higher level.

Begin the outline with an overview of the topic of your paper (not your hypothesis, just your topic). The outline should present the major points that support your hypothesis along with supporting evidence for each of those points. It may be easier to write the outline without any of your references, then go back and add references where they are appropriate. I would advise against writing your intro around the articles you found because a poorly chosen article might hijack your introduction. Instead, focus on the case you are trying to make. Be as specific as possible. Be sure to provide background for both your independent and your dependent variables. For example, if you are examining the relationship between political conservatism and attitudes toward criminal sentencing, you would need to provide background on conservatism and on criminal sentencing: how it's measured, extra-legal factors that influence it, etc.

After the outline, give the APA-style reference and the abstract for each reference. See the *Using Google Documents* handout for how to add hanging indents. Do not use any part of the abstracts in your outline. Your grade on this assignment will depend in part on how well-chosen your references are.

Method Section

This is the first section of your paper that you will submit for a grade. When writing scientific papers, it is often most efficient to begin with the Methods section because it tends to be the most straightforward and easiest to write. This section is divided into three subsections using headings: Participants, Materials, and Procedure.

Title Page

The title page is the first page of an APA-style manuscript. Under your name and affiliation, please also list the name of this course ("PSY 220: Research Design and Statistics") and the semester and year (e.g., "Fall 2003").

References

The reference list is a list of all the sources that you cited in your paper, in APA style. The word "References" should be at the top of the page, centered. The whole list should be double-spaced. References should be listed in alphabetical order by first author. You should have at least five references for the References assignment and in the final version of your poster.

Results and Discussion

The Results section contains all of the results of your analysis, including means, *t*-tests, and correlations. If you wish, you may put your figures or tables into the Results section rather than after the reference list, but be sure they are formatted correctly. The easiest way to insert a figure into Google Docs is to create the figure somewhere else (such as Deducer or Excel), export the figure as an image (the .png format works better than .jpg for line drawings), and then import the image into your document. The Results section can be very brief if your analyses are simple (e.g., a single *t*-test), but your Discussion section should be at least 500 words. See the reading on Results and Discussion sections for more details.

Introduction

The function of the introduction is to tell the reader why you're doing this study and to develop the rationale behind your hypothesis. This section begins broadly with familiar ideas and quickly narrows to focus on your specific research question. You should state your central research question within the first three paragraphs. The introduction also reviews previous research that has been done on this topic. Cite at least 3 sources that help to develop your hypothesis or that provide relevant theory. Your introduction should completely justify the hypothesis; readers should get to your hypothesis and think "of course, this is obviously the next step." Do not cite vaguely related articles and then spring the hypothesis on unprepared readers. Any statement of fact that could be reasonably disputed must be backed up with a citation: "Overall, the psychological literature indicates that men tend to be more aggressive than women (Eagly & Steffen, 1986)." As this example illustrates, the general format of citations in APA style is parenthetical, with a comma separating author(s) and date of publication. If you use a direct quote, you must also give the page number. Do not cite "class notes" – find the original source. See the APA *Publication Manual* for how to format citations. After stating your hypothesis, provide a brief overview of your procedure. This overview should be no more than a single paragraph and should provide enough information so that a reader could skip over the methods and results sections and move directly to the discussion and still have an idea of what you did in the study. Your introduction should be at least 500 words.

Abstract

Best advice before writing your abstract: read a bunch of abstracts from published articles (e.g., read abstracts from the *Journal of Personality and Social Psychology* using PsycINFO) immediately before you write yours. The abstract should be comprehensive enough to capture the major content of the article, but is limited to 200 words or less. It should begin with your general topic, very briefly describe your procedure (preferably including the number of participants), cover the major results, and have a sentence or two about the implications of your findings. You are permitted to use numerals for numbers less than 10 (elsewhere in your paper, these should be spelled out: e.g., "two"), but all acronyms must be expanded: "Subjective Well-Being Scale," not "SWB Scale". Citations in the abstract should include the first initial of the author's first name: (L. Festinger, 1957). Assume the reader of your abstract will never read your paper – the abstract must be able to stand on its own.

Oral Presentation

Each project will be presented to the class during a lab session near the end of the semester. You should use Microsoft PowerPoint or an equivalent electronic slideshow program (such as Google Presentation). Your presentation should last 10-15 minutes. Your goal is to effectively communicate the purpose of your study, its methods, its results, and the meaning of those results. See the separate handout on guidelines for the oral presentation.

Poster

In addition to the oral presentation, you will also present your results in a poster session near the end of the semester. See the separate handout on guidelines for the poster.