

# Research Design Paper Instructions

POSC 3410 – Quantitative Methods in Political Science

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## Basic Format

The research design paper you will write in this class will resemble an extended form of the prospectus written earlier in the semester. After receiving my comments on the prospectus, the student should build on the prospectus as a template for the research design paper.

Basic formatting concerns will be addressed first. The research design paper should be *single-spaced* and between 6,000 to 8,000 words. Margins should be one-inch on all sides. This will correspond with a paper that is approximately eight to ten single-spaced pages. These requirements and estimates exclude the title page, abstract, and references section, which should still be provided. Citation and references should be done following APSA style (see: [American Political Science Association, 2006](#)).

## Title Page and Abstract

Your research design paper should include a title page with abstract. The title page will include the title of your project and your name. The abstract should be between 150 to 200 words and provide a summary of the paper. Students unaccustomed to the purpose of the abstract should read a few journal articles (and ideally has in the conduct of the literature review) to understand what the abstract does.

## Introduction

In approximately three to four paragraphs, the student should introduce the research design paper to follow. This is the part of any paper that is easy to neglect, but it is subtly one of the most important parts of the paper. In short, the student must use this section to frame that what follows is a novel means to addressing an important social scientific problem. If I, as a reader, don't have a firm idea of what's going to be addressed in the paper after the first few sentences, the fate of the paper is in serious peril.

There is no single right way to do this section, but this broad template may be useful. Whereas numbered list items coincide with paragraphs in the introduction section, the introduction should:

1. Begin by identifying the problem to be studied and why it's important. Whatever voice the student has to deviate from this simple template, this should still come first.
2. Offer the author's inclination for why we have yet to solve the puzzle and why the author believes s/he can solve this important problem. Perhaps there's part of the puzzle we have yet to address that offers an important solution. Alternatively, the author can further expand on the problem to hammer home its importance.
3. Provide the author's argument and elaborate how the author will go about addressing the puzzle. This paragraph typically begins with something like "In this paper, I explain/argue/show..."
4. Outline the paper to follow. I typically begin this paragraph in my manuscripts with something like "The manuscript proceeds in the following fashion. First, I review the literature on..."

Students will find their own voice in crafting an introduction to this research design paper. To that end, though, I encourage students to read political science articles to see how this is typically done in our field. I am a firm believer that undergraduate students can help themselves become better writers by reading and emulating styles they see.

## Literature Review

In a normal political science article, the literature review can be quite tedious. For the purpose of this class assignment, the literature review will be an important part of the research design paper. It should be between six to eight paragraphs.

A literature review will need to do the following. One, it needs to frame the problem you are addressing, why it is important, and why your attempt to solve the problem is a worthwhile use of your time. Second, it will also need to communicate you have adequately gauged scholarly opinion on the subject to identify what is left unaddressed and how your proposal to follow would address it.

The literature review is not the most interesting part of a paper, but it will serve as your signal to me that you have consulted the relevant literature on your topic and that what follows is an appropriate means to resolving an important social science problem. Students often do not know what a literature review is, let alone how to do it well. To save myself some time, I will refer the student to Ashley Leeds' (Rice University) guide on [how to \(not\) do a literature review](#). Her comments in that guide are excellent.

There is no single right way to do a literature review. Much of it is contingent on the problem being addressed. Some common and good literature reviews can be framed as follows.

- Why is A the case and not B?
- We know a lot about A but we know little about B. However, A suggests B.
- Author A and Author B make different predictions about C. Who is right?

To reiterate Ashley Leeds' remarks in her guide, don't lose sight of the literature review's purpose. The literature review is supposed to frame the problem being addressed, why it is

important, and why your attempt to address this problem is a worthwhile use of your time. It's not a space for disorganized knowledge. Synthesize the literature to address the problem.

Similar to the case of introductions, students should learn more about literature reviews the more scholarly journals they read. I recommend one article, in particular. Peffley and Rohrschneider's (2003) analysis of democratization and political tolerance is an exemplar for students of cogent writing and analysis in all facets, including the literature review. I encourage students to read this article to see how the authors framed their study and emulate it appropriately.

## Theory

The theory section is arguably the most important section of any research paper, but it is also the hardest. For the sake of the research design paper, it should communicate the author's argument about the variation in some phenomenon being studied. It will be about six to ten paragraphs.

There is only so much I can offer in this guide to help the student. Ultimately, this is where the student communicates to me that s/he has thought thoroughly about a problem and what s/he believes solves the problem. I do offer the following warnings and advice, though.

- Theories are conceptual. Speak conceptually.
- Theories are supposed to be internally consistent. Think of it as a process similar to a **syllogism**. Each premise is supposed to follow organically from the preceding condition. A is supposed to lead to B, which leads to C, which leads to D, which implies E, and so on before deductively arriving at the hypotheses. Thus, if I accept the author's premises, I must accept the author's conclusion. If I don't, I contradict myself. It should be intuitive that the student should not contradict herself either.
- Theories are not literature reviews. That was the previous section. Citations to other people's work in a theory section should be minimal. After all, this is the student's argument, not someone else's argument, being advanced.
- Theories are also not research designs. That's the next section. Again: speak conceptually.

The theory should organically lead to the testable hypothesis to be explored next. State the hypothesis (or hypotheses, if necessary). Recall our in-class discussion about what satisfactory hypotheses must communicate.

## Research Design

This section, otherwise standard fare in a conventional political science article, will be emphasized in a research design paper. For the purpose of this assignment, there is no recommended paragraph count (beyond the word and page count stipulated in the first section). The research design section of the paper should accomplish the following.

- First, discuss the dependent variable. This is, importantly, the concept being analyzed and ostensibly the problem to be solved. Deal with it first. From where does the variable proxying the concept come? Is it normally distributed? Is it a dummy variable? Does the student intend to recode it? If so, how?

- Next, discuss the primary independent variable(s). This should be what the author believes accounts for important variation in the dependent variable. Here, the student needs to discuss the origins of the independent variable, how it is coded (or recoded).
- Thereafter, discuss additional (control) variables to be used in the analyses. Why include these control variables? Where did the student get them?
- Finally, discuss the statistical model to be estimated. Is it a logistic regression? A linear regression? Are you splitting the sample? Is it some other kind of more complicated model that we did not discuss in class (e.g. Heckman selection model, mixed effects model)? Mention the model and why it is appropriate.

## References

American Political Science Association. 2006. *APSA Style Manual for Political Science*. American Political Science Association Committee on Publications.

**URL:** <http://www.apsanet.org/media/PDFs/Publications/APSASStyleManual2006.pdf>

Peffley, Mark and Robert Rohrschneider. 2003. "Democratization and Political Tolerance in Seventeen Countries: A Multilevel Model of Democratic Learning." *Political Research Quarterly* 56(3):243–257.