# A Guide to Writing Research Projects in Graduate Political Science Courses

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# Contents

# 1 Introduction

## 1.1 Version 2.0

This revision to *The Guide* was carried out during October 2007. *The Guide* itself was developed in stages as part of a graduate-level seminar during which graduate students executed research projects in incremental fashion during a 16-week semester. This revision to *The Guide* removes some of the brief (but to the uninformed, non sequitur) references to said originating graduate seminar, smooths transitions between the various sections, clarifies and elaborates existing points, and streamlines some of the section formatting. Ultimately, the revision resulted in *The Guide* being presented in a more general form, one usable in any graduate-level seminar. Notable revisions in this draft are as follows:

- Significant revision to discussion of research puzzle/question, Section 2;
- Modest revision to discussion of literature review, Section 3; and
- Significant revision to description of theory development, Section 4;

One major shift in the focus of version 2.0 of *The Guide* is a greater balance between the explanation of a task (e.g., identifying a research puzzle/question) and form (i.e., stating your research puzzle/question.)

## 1.2 Version 1.0

The following *Guide to Writing a Research Project in Graduate Political Science Courses* (hereafter *The Guide*) was originally developed for the graduate-level seminar (PSCI 5820) taught during spring semester 2005 in the Department of Political Science at the University of North Texas. The purpose of the course was to have a small group of students spend a semester working through an entire research project of their choosing with an eye toward presenting their respective projects at a professional conference and submitting the project to a political science journal for peer review. Additionally, it was intended that said research projects might form the basis of lengthier projects, such as theses or dissertations.

The process of "working through a research project" was designed to be accomplished *incrementally*, with students identifying a research puzzle and

question, surveying the literature, developing theoretical expectations, etc., in successive weeks during the seminar. Each increment, or installment, of the each project was reviewed by the instructor as well a seminar participants, and verbal feedback provided to the author on a weekly basis during the seminar. This strategy stimulates a continuous revision process. By following this strategy of project construction, each seminar participant developed a complete, thoroughly vetted research project by the semester's conclusion.

The following sections of *The Guide* loosely correspond to the installments of the semester research project as it is developed incrementally. *The Guide* is flexible in that only the components that are useful to the instructor or student can be employed, such that if a seminar assignment requires a project that terminates with the research design, then only those components of *The Guide* need be employed. Finally, central to the creation of *The Guide* is the belief that "half the battle" in the creation of graduate seminar paper by students concerns the general form of a standard research project. Certainly, form does not substitute for substance (i.e., a fully developed, but poorly written project), but it is a start.

# 2 The Research Puzzle/Question

Developing a suitable research question is the first step in your research project. The process by which one formulates a research question can be simultaneously exciting and bedevilling, as you move from identifying an area of research interest, to identifying and refining a question such that it is both original and manageable given available time and resources. In this, the first of your tasks in completing a graduate-level research project, you are to pursue this refinement process by addressing a set of questions that are intended to encourage you to accomplish the following: (a) select a specific research question of interest from a set of questions that you identify in your research area; and (b) consider the potential academic and societal implications of your study of said question, so that the project is not an isolated event, but part of a broader research initiative.

In answering these questions and settling upon a research question, you are encouraged to think very broadly and exert your creative and intellectual capacities to their fullest, before narrowing your focus to a single question. Thinking broadly will enable you to identifying additional issues and research questions viable for subsequent study, perhaps in your dissertation or in other professional papers. In thinking broadly, it is important that you communicate with professors in your department and engage in the proverbial tossing around of ideas, so that you begin to sharpen your skills in thinking about issues and puzzles from different angles. Your graduate professors have a great deal of experience in doing so, and they can demonstrate their expertise during your conversations. Further, your graduate professors will be able to help you shape your ideas, and do so with some expertise in a research area. Optimally, you might identify common research interests with some of your graduate professors, and in turn joint research projects might emerge.

As a start towards developing a suitable research question for your project, consider the following questions:

1. *What is your general research area of interest?* What draws you to the field of political science? Is there some experience that rivets you to political relationships and behavior? Do you have a particular substantive interest? For example, are you interested in human rights, democracy, privatization of industry, civil wars, military strategy?

2. *What behavioral puzzles do you observe?* Depending upon how you've learned about the process of research, you might not have encountered

the term "puzzle" before. A puzzle is an observation (by you) of a discontinuity in (political) behavior in your area of interest for which you do not have a ready causal explanation. For example, you might be interested in the relationship between religion and national-level democratic institutions, and you observe a great deal of variation in the presence of democratic institutions in states that are predominantly Islamic. You might also observe that this variation is not readily explained by current explanations for the presence of democratic institutions. What explains this variation? The research puzzle provides the foundation for research questions. As such, a puzzle is a good thing and represents the justification for the various aspects of your research project;

3. *Given the identification of a research puzzle, what is an appropriate research question?* Your research puzzle will generally stimulate several research questions, large and small in terms of scope, that might warrant your investigation. You want a research question that is sufficiently large in scope for a the project upon which you are embarking. In keeping with the previous example about Islam and democratic institutions, an appropriate research question might be as follows:

   > What explains the presence of democratic institutions in Islamic states?

4. *How might these research questions be organized into a research agenda.* Although your prime interest might be in writing a seminar paper, it is often helpful to conceive of research puzzles forming the basis of a research agenda (i.e., a series of questions that are examined incrementally, but can be considered together.) This said, learning how to break up a larger research question into smaller, more manageable parts is an important skill to learn, and one that you can develop in conversation with you graduate professors and graduate student colleagues;

5. *What might be the broader implications of your research question for your field of specialization.* Consider the potential implications of your study for political science more generally. Again, continuing with the aforementioned example, if you address the research question pertaining to democratic institutions in Islamic societies, what might be the

implications of your project for more general studies of democratic institutions? Finally, consider the potential implications of your study for society. While this issue of societal importance might strike you as trite, it is not. In part, doing something that you believe has normative importance is an important element of motivation. Additionally, the issue of the societal implications of your research project might emerge a number of settings (e.g., a job interview.)

After you have identified your research question, you should consider the following questions:

1. Is the question clear and concise? That is, can the question be stated in a single, interrogative sentence of moderate length?

2. Is the concept that reflects your phenomenon of interest (i.e., your dependent variable) visible in the question? That is, if Islam and democracy are central to your puzzle, are these two concepts present in your research question? If not, make sure that your primary concepts are reflected in your research question.

Once you have what you believe is viable research question in hand, pose your question to a colleague, querying your colleague as to the clarity and conciseness of your question. Ultimately, research questions are not "written in stone"—i.e., they can change and evolve as you read and explore. For example, you might find that, upon reading some of the literature, you discover that a great many scholars have explored your question previously, and you wish to explore a research question that is relatively unexplored. Alternatively, as you read the literature you might find a particular sub-area or nuance of your original question that you find of interest and wish to explore as you research question. Research question evolution notwithstanding, the question that you do arrive at must be clearly and visibly stated in your research project. That is, there should be absolutely no uncertainty on the reader's part as to your research question and its validity as the focus of your research project.

# 3 The Literature Review

## 3.1 General Purpose

During the process of identifying your research puzzle and related research questions, it is likely that you've examined some of the scholarly literature that bears on your puzzle/question. Sometimes, puzzles/questions are stimulated by reading the scholarly literature. Alternatively, research puzzles/questions can emerge from any number of sources. Regardless, at some point it is necessary to vet thoroughly the scholarly literature (broadly defined) that is relevant to your research question. In doing so, you are engaged in the process of "reviewing the literature," or identifying and familiarizing yourself with prior efforts by scholars that bear in some way on your investigation of the aforementioned research puzzle/question.

Reviewing the literature requires you to provide the reader with just enough information about prior efforts, without regurgitating the details of each and every study that is relevant to your inquiry. Usually, it is helpful if you organize your discussion of the pertinent literature around theoretical themes. For example, if you are interested in the way which third parties influence the outcomes of civil wars, you might introduce the reader to the role of third parties in conflict in general (e.g., interstate and civil), before turning specifically to the latter, since the causal dynamics reflected in the former literature might bear on the latter literature.

In addition to reviewing how previous efforts have approached theoretical and empirical issues relevant to your study, you might also be interested in demonstrating to the reader the strengths and weaknesses in this work in an effort to set the stage for your own investigation. Regardless, in reviewing the literature it is important that you demonstrate to the reader how your contribution will add constructively and significantly to an existing research agenda (the authors of some of the studies that you review may, in turn, review your research when you send your manuscript out for review by peer review journals, so you want to be as diplomatic as possible, while at the same time demonstrating that your efforts are novel and that you're innovating the research agenda.)

Sometimes, a literature is enormous (e.g., the democratic peace), while other times a literature is relatively small (e.g., the study of interstate occupation). In the former case, you need to develop the ability to cite prior research that is representative of classes of prior research, while avoiding

discussing at length each and every contribution to the literature (e.g., you might identify and discuss the prior work that is representative of the study of, for example, democracy and economic development research agenda, and cite subsidiary contributions collectively.) In the latter case wherein the literature is quite limited, it might be possible and suitable to discuss each piece of research in greater detail.

As this discussion suggests, the development of the literature review may follow variable paths. At this stage, is is important to cast the proverbial net widely. For example, in addition to exhaustively investigating the extant research in political science, it is important to investigate research in related social science fields, or beyond. Given advancements in electronic search engines (e.g., citation crossing indexes), these searches are more easily facilitated.

## 3.2 Components

In sum, the purpose in writing a literature review is, broadly speaking, threefold:

1. To discuss the scholarly work relevant to your project;

2. To point out the strengths and weakness of this body of research (and, in doing so, keeping in mind a respectful, even-handed approach to evaluating this work); and

3. Identifying how this body of research as it currently stands has not addressed sufficiently the research puzzle/question that you've identified, or that this body of research (and it might be one that is far afield from your area of interest—e.g., you're studying IR, but you're borrowing something from anthropology) might be helpful in addressing your question or puzzle.

Of the aforementioned three tasks, the third task in developing your literature review is critical, because it informs the reader as to the reason(s) why further research (i.e., your paper) is warranted, and provides the setup for the theoretical portion of your project. It is very important that you devote some project space to elaborating the reasons why the current literature is inadequate for answering *your research question* in some way or ways. As an exercise, you might consider yourself confronted by a very skeptical reader

who is deciding whether or not to spend the time to read the remaining 40 some-odd pages of your project. Ask yourself how well you are doing in convincing this reader to read on. Are you really providing a neat angle on the literature, something that will draw the reader in, or is the remainder of your paper likely to be a very small, incremental advance in previous work, or even worse, quibbling over very minor offenses in prior work? In some cases, the reader might very well have contributed to prior research. This is not necessarily an adversarial relationship, as you are citing this reader's work and you are perpetuating a research agenda that the reader considers important.

Ultimately, you should keep in mind that you have about 10 double-spaced pages to execute your literature review, so you need to be concise, while at the same time devoting sufficient space to the aforementioned third task. This 10 page limit is purposely constraining. Hallmarks of graduate seminar papers are long literature reviews that result in starvation of the remaining sections of the project, such as the theory and research design. As such, the page limit compels you to be succinct, identify the general attributes of the extant literature, and develop a transition to your theoretical section.

# 4 The Theory

## 4.1 General Purpose

Having established a clear, concise research puzzle/question and developed a literature review outlining extant research bearing on your puzzle/question, it is time to turn to one of the more difficult, but perhaps the most rewarding, components of your research project. Like any project, pondering the task of developing your theory in its entirety can be daunting. Yet, as with our other tasks this semester, tackling the task incrementally, piece by piece, can make the task more manageable.

In developing theory, you are engaged in identifying the logical assumptions and mechanisms that underly the political behavior that is of interest to you (i.e., the dependent variable reflected in your research question.) To start, you shouldn't assume that the reader is fully informed, or would necessarily draw the same logical conclusions as you do from a set of conditions. Therefore, it is necessary for you to be as explicit as possible in identifying the causal mechanisms that combine to generate the outcome that is of interest to you. Stated differently, your task in this section of your paper is to spell out a "theoretical story" of how you expect the components central to your research question fit together in a causal manner.

Let me provide you with an example and some further step-by-step guidance. Suppose, for example, that you are interested in laying out a theory—i.e., developing a set of expectations (formally expressed in your paper as hypotheses)—of the way in which third party actors influence political institutions in states following the cessation of hostilities in a civil war, *with the goal of explaining the type of political systems that third parties encourage.* In order to get at this question, it might be important for you to discuss how and why third parties intervene in civil wars. Ultimately, you will want to discuss how and why third parties make the decisions they do regarding the polities they encourage in post-civil war states.

As you develop your theory, you might find yourself stating what you consider to be the obvious (e.g., third parties act in their own best interests when making policy). Yet, statement of these obvious assumptions might lead to less obvious theoretical components (e.g., the bases by which third parties choose to encourage democratic rather than autocratic political institutions in post-civil war states.) Ultimately, you might argue that the decisions made by third parties regarding post-civil war polities flow from a

number of sources, including strategic and economic interests, for example. Regardless, you will need to identify these stimulants of policymaking, and in turn, rely on these assumptions to fashion expectations about political institutions in post-civil war polities.

Formulating theory is a not an easy task, and it is a task that is frequently avoided. Indeed one often finds it attractive to skip from the research question stage to the research design stage, a diversion that often results in considerable energy devoted to variable measurement. Yet, avoiding theory making weakens your overall impact and potential contribution of your project. These observations regarding the importance of theory making do not make task of theorizing may easier; they just underscore the importance of theorizing. However, at the very point that you confront this difficult task, an important dimension of your graduate education comes to the rescue: your graduate professors. Your professors are a resource, and given their considerable experience in doing social science, you should work with them in teasing out your theory. In fact, your theorizing might require several conversations, interspersed with periods of contemplation, writing, and so forth.

## 4.2 Step-by-Step

At this point, you know that it is critical that you theorize, as well as to work with your advisor in doing so. But, where to begin? One method is to break the theorizing task into components, or sub-tasks. These sub-tasks might be as follows:

1. Develop *assumptions* about the primary elements, or actors, reflected in your causal linkage. If you are interested in religion and democratic institutions, explain what these two concepts. What is religion? What are democratic institutions?

2. Identify the *primary causal relationship* about which you are interested in developing expectations. For example, the heart of your research question might concern the relationship between religion and democratic institutions. You need to discuss how religion and democratic institutions fit together causally. For example, you might theorize that different qualities of religion (e.g., hierarchy) condition the type of democratic institutions that emerge. What is this process of "conditioning"?

3. Identify an *expectation* about the anticipated behavior of said elements or actors under specific conditions. As you theorize, expectations regarding causal relationships will emerge. For example, you might reason that states wherein religions that favor hierarchy are likely to contribute to the emergence of democratic institutions the reflect presidential, rather than parliamentary, qualities. Be capable of elaborating the causal links between the stimulant and outcome; that is, be able to tell the story underlying and leading to your expectations.

At this point, you now have a theory designed to address the research puzzle/question that you identified at the outset of your project. The expectations that you distilled from your theory form the basis of your hypotheses, the subject of which is taken up in the following section.

# 5 The Hypotheses

Now that you have your theory, it is important that you begin to derive from this argument one or more testable hypotheses from your theory. In general, hypotheses identify the primary relationships that your theory predicts, or expects, will occur given a given set of conditions outlined in your theory. It is imperative that any hypothesis that you formulate contain reference to at least one concept that represents an independent, or predictor, variable and reference to one concept that represents a dependent variable. Additionally, it is imperative that each hypotheses reflect conciseness and clarity.

By way of example, if you are developing a theory about the decision by third party states whether to cultivate democratic political institutions following a civil war in another state, your theory should lead you to derive one or more expectations about this choice by third parties; that is, some underlying logic that leads you to develop specific expectations about what third parties will do. Perhaps central to your theory is the condition that a third party intervenor is engaged in a security competition, or "rivalry," with another third party intervenor. One hypothetical hypothesis that you might formulate such a condition is as follows:

> Hypothesis 1. The presence of an *interstate rivalry* increases the likelihood that a third party intervenor will encourage *democratic institutions* following a civil war in the civil war state.

As stated, in Hypothesis 1, the independent variable (interstate rivalry) and the dependent variable (democracy) are clearly identified, as is the positive relationship between the two concepts. Achieving this clarity in terms of core causal and outcome concepts, as well as the direction of the relationship, is absolutely essential.

In developing your hypotheses, you should keep the following in mind:

1. Each hypothesis should be clearly numbered, if you develop more than one hypothesis. Sometimes, scholars will refer to a hypothesis by a label or name (the "Realist Hypothesis"). If you prefer to do so, then this label will replace the label "Hypothesis #". Regardless, labeling should be clear;

2. As noted above, your hypotheses should refer to *concepts not variable labels*, because as this point in your paper the reader will have

no knowledge of variable operationalization, a task that is undertaken subsequently in the Research Design;

3. It is wise to introduce your hypotheses incrementally as you work through your theory. Sometimes, authors will outline their theory and then conclude the theory section with as list of hypotheses, but I do not recommend that you follow this strategy. Rather, I recommend that you proceed by introducing each hypothesis as it is appropriate in the theory;

4. Each hypothesis should be indented in the text (as above, much like one might for a quote), with a double-space before and after the indented text; and

5. Make sure that you embed your hypothesis, or hypotheses, in well developed transitions and supporting paragraphs, such that the transition to and from of each hypothesis is accomplished smoothly.

# 6 The Research Design

At this point, your paper consists of (in rough form) a discussion of the research question, a review of the literature, the development of a theory and a set of testable hypotheses. The text of your project should encompass about 18 pages of text (double-spaced, 1" margins all around), such that about 15 pages of space remains for your introduction, research design, analysis, and conclusion sections to be added in the second half of the semester. If you find that you are currently exceeding this 18 page benchmark, then you will need to trim your draft accordingly. In doing so, it is preferable to target the literature review for trimming rather than your theory section, as the latter is paramount to your project and should not be trimmed unless absolutely necessary.

A research design is a statement of the plan that you will execute to test the hypotheses that you identify in your theory section. The remainder of this brief guide to research design is divided into two sections. The first section underscores some of the general issues that you should keep in mind as you develop your research design, while the second section outlines sequentially the components of your research design.

## 6.1 General Goals

1. *The Plan.* Your research design is a recipe for the hypothesis testing procedure(s) that you intend to carry out in the remainder of your project. By recipe, I mean a plan or road map of the method by which you will construct and execute your hypothesis testing procedure(s). In writing this section of your project, you should imagine a scenario in which you are charged with recreating a research design from scratch without the privilege of (a) communicating with the author, or (b) examining the final data sample assembled by the author. As an author, then, you have the weighty responsibility of describing how you went about baking your cake (i.e., hypothesis testing), and doing so such that your average reader can bake an identical cake, or hypothesis testing procedure. Therefore, it is imperative that you write precisely and explicitly about the various decisions that you make in fashioning your research design.

   Do not assume knowledge on the part of the reader, even if several extant studies cover the same material and one might presume (in-

correctly) that an average reader is up to speed on the state of the literature. Do not assume that you reader will naturally draw the same conclusions that you do, or that your design decisions are necessarily intuitive. Ultimately, as an author of a research design your mantra should always be the following: "clarify and explain, and clarify and explain some more." Finally, never doubt the ability of a reader to misunderstand what you've written, and make adjustments in your explanations to minimize these potential misunderstandings. In order to discover inconsistences or misunderstandings, consult colleague and see if they understand your research design. Such a conversation might reveal research design decisions that need to be clarified;

2. *Think Broadly.* You should strive to keep an open mind about your research design. In other words, it is recommend that you visit and think through each design decision (e.g., choosing a unit of analysis), rather than deciding on a strategy because many scholars before you have chosen strategy A over strategies B and C. Certainly, there is something to be said for building on the hard work of previous scholarship, but revisiting these decisions may stimulate insights into novel strategies for testing your hypotheses more completely. Furthermore, there is also something to be said for injecting innovation into what has become the accepted research design gospel in the literature; indeed, ingenuity can provide you with an advantage when presenting your work or submitting your work to a journal for review, because it demonstrates independent thought, creativity, and well, ingenuity. So, you are encouraged to engage in thinking outside the proverbial "box," if only to be prepared in your job talk to handle questions from left field from questioners not easily satisfied with the response, "This is how everybody else does it";

3. *Convince the Reader.* In writing your research design, you are essentially presenting your strategy for testing your hypotheses, and convincing the reader that your strategy is valid, objective, fair, or simply put, scientifically rigorous. To do so, you will need to rely on some of the basic concepts that you learned in your foundation course in graduate political science, scope and methods. Specifically, you will need to think about several issues, such as the identification of an appropriate testing strategy, selection of a unit of analysis, and operationalization

of concepts and the structure of your tests. You also need to discuss (i.e., inform the reader of your reasoning for various decisions) why the strategy you selected to, for example, operationalize a variable, is superior to an alternative strategy. Although journal editors often require their removal in formal manuscripts, in your project for this seminar (as well as in your dissertation) it is important that you review the basic characteristics of any concepts that you operationalize (i.e, mean, minimum, maximum, standard deviation, mode, median.) Again, as an editor of your own work and a critical leader of the work of your colleagues, you should ultimately ask yourself the following two questions:

(a) Is this research design the best plan for testing the author's hypotheses? If not, how can the research design be improved so as to eliminate these weaknesses?

(b) If I were a reader, would I be able to replicate this research design given what the author provides?

## 6.2 Components of Your Research Design

In total, the research design section should be approximately 6-8 double-spaced pages, such that adequate space remains for you to execute your analysis (i.e., execute your hypothesis tests), discuss the implications of your findings for the current literature, and write your conclusions in the remaining sections of the paper. In keeping with the previous components of your paper, you should commence your research design with a new subheading labeled "Research Design." In turn, your research design should comprise the following sections and subsections:

### 6.2.1 First Paragraph

The first paragraph of your research design should outline the basic parameters of your hypothesis tests. Specifically, in this section of the paper you should briefy outline the spatial and temporal domain of the sample that you will be using to test your hypotheses. For example, if your hypotheses necessitate studying the OECD countries, you might explain the OECD and the members of this organization. In doing so, you would identity any nuances

of the spatial component of your study (e.g., Lithuania is excluded for whatever reason.) The same goes for the temporal component of your study, such that you should identify the basic temporal range of the spatial units that you will be observing and recording data for the dependent and independent variables. So, if you are studying civil wars, you will to alert the reader to the fact that will examine all civil wars for the period for a given period of time, for example. It might also be the case that you are interested in introducing a phenomenon or unit that is new to the literature, and therefore requires some explanation prior to operationalizing the dependent and independent variables. You should use this brief section to outline the coding of this new unit.

Finally, it is critical that you identify the unit of analysis in your study. For example, if you are studying each country in your sample per year, then your unit of analysis is the country-year. Alternatively, if you are studying pairs of countries per year, then the unit of analysis is the dyad-year. Regardless of the unit that you select, its identification should be placed in italics or underlined in your text, so that there is absolutely no doubt in the reader's mind as to the unit upon which you are observing the attributes associated with your dependent variable.

### 6.2.2 Dependent Variable

Your dependent variable is the paramount variable in your study; it is the variable that you are interested in explaining. Thus, it is important that you are explicit in your operationalization of this variable. First, you should remind the reader of the concept (reflected in your hypotheses) that you intend to operationalize empirically, so that the reader understands your strategy; that is, your translation of theoretical concept into empirical measurement. Next, you should discuss the pros and cons of various methods of operationalizing your dependent variable. What are the tradeoffs between different operationalization strategies? Why does one strategy provide an operationalization that more closely reflects the concept that is identified in your theory? How reliable and valid is your operationalization of choice? After you have selected your operationalization strategy, and clearly identified the source data for your operationalization, it is necessary for you to provide a short label for your dependent variable, such as "Interstate War" or "Per Capita Growth." When you refer to this variable, use the variable label as a reference.

Next, you need to turn to the task of describing the empirical characteristics of this variable to your reader. Recall, that your goal is to enable the reader to picture, or envision, your data structure without being able to set his or her eyes on the sample. You can accomplish this task by discussing the distribution characteristics of the data on your dependent variable (e.g., minimum, maximum, mean, standard deviation, mode, median), something that might require inserting a table or a figure. How many observations are missing, and are missing observations or units a refection of bias (e.g., countries engaged in civil war are less likely to report data on economic conditions)? Are the data normally distributed? If not, why not and what special pre-cautions need to be undertaken when employing the dependent variable and interpreting any findings? The remainder of your research design should answer these questions for the reader, so that you (and your average reader) are confident that your dependent variable is a sound approximation of the concept of interest in your theory and hypotheses.

### 6.2.3 Independent Variables

Your discussion of your the independent variables should follow the same strategy for your independent variables as you did in explicating your dependent variable. In doing so, it is helpful if you treat each independent variable in a separate subsection with a separate subheading, so that the reader is clear about which variable you are operationalizing. Again, it is important that you identifying the source data for your operationalizing, provide a label for each variable, identify the level of measurement for each variable (i.e., nominal, ordinal, interval, ratio), and the distributional characteristics of each variable. Ultimately, it is necessary that you convince the reader that you've taken the the appropriate steps to operationalize your variables in the most scientifically rigorous manner possible.

### 6.2.4 Methodology

The final subsection of your research design should discuss the method, or methods, that you will employ to carry out your hypothesis tests. Your discussion should entail significantly more than simply stating, for example, that you intend to specify a particular type of regression model. Rather, in keeping with your practice in the prior components of the research design, you should walk the reader through the logic underlying your choice of method.

In doing so, you should cite the appropriate authorities on the subject, and weigh the costs and benefits of using various methods. How and when will you determine whether a hypothesis is confirmed? What are your standards for rejecting or accepting the null hypothesis? Additionally, you should also discuss any diagnostics that you will employ to ensure that your statistical analysis, and by extension your hypothesis tests, are robust.

# 7 The Analysis

Now that you've developed a research question, traced the treatment of this question in your literature review, developed a set of theoretical expectations, and developed a research design enabling you to test these expectations, it is now time for you to report these tests. This portion of your research project is referred to as the "Analysis" or "Hypothesis Tests" section of your project (it should be labeled as such), and it is in this section that you will execute the important task of putting your theory to the test against some evidence, and in turn, assessing whether your theory "works" as an explanation of your phenomenon of interest. Your overarching goal is to convince the reader that you've provided fair, valid test(s) of the hypotheses that you've derived from your theory, such that the average reader is relatively confident in your conclusions. Below, I identify some items that you should keep in mind as you carry out your analysis and write up your findings:

1. *Refresh the Reader's Memory.* As you know, academic papers can be long and complex, and it is reasonable to assume that it is difficult for a reader to recall the nuances and finer points of your project as they have been identified in the previous sections of your paper (e.g., how a concept identified in your hypotheses is operationalized with one or more empirical indicators.) Therefore, it is important that you refresh the reader's memory where necessary. For example, instead of stating that you are planning to test "Hypothesis 1," remind the reader of the basic expectation reflected in this hypothesis (e.g., negotiated settlements are more likely to be followed by the cultivation of democratic institutions.) This refreshing of the reader's memory may be necessary for the operationalization of variables that have similar names or those concepts for which you are exploring a set of operationalizations. The basic rule of thumb is to keep your language simple, efficient, clear, and constantly imagine whether the average, moderately informed reader could replicate the experimental conditions that you're undertaking in this paper. If you have any doubt, then further clarification is necessary;

2. *Be Skeptical, Because Readers Are.* It is recommended that you assume a skeptical, but confident, approach to writing up your analysis. Despite hard work, reams of data, and high powered statistical programs, you are basing your assessments of theoretical expectations on

*estimates* of some truth and then assessing the performance of your theory against this estimate. Some measure of skepticism might also gain the reader's confidence that you, as the scientist in charge, are providing stringent tests of your hypotheses and not, as often seems to be the case, giving your theory an advantage, or even the benefit of the doubt when it comes to assessment. Stated differently, you want to convince the reader that you've "set the bar" very high for verifying your expectations;

3. *References To Visual Aids.* You should be careful and clear in your references to tables and figures, making sure train your reader's eye's on a particular variable or column in a given table or figure. Similarly, you should make your tables and figures easy for a reader to digest, and therefore learn the fine art of constructing visual aids that have a minimum of clutter, as well as visual aids that have informative titles, keys, and notes regarding sources;

4. *Substantive Effects of Variables.* Although it is important to recognize the statistical significance of various relationships, it is also important to try to assess the substantive importance of statistical relationships. Given your training in graduate school, it is often the case that your attention is riveted to the statistical significance (yes, those pesky asterisks!), rather than substantive significance. But, it also the case that relationships can register as statistically very significant (i.e., you have high confidence that the estimated relationship in the sample holds in the population), but *substantively weak* (i.e., the unit change in Y given some value of X is picayune.) Ultimately, it is important to assess whether a particular relationship in question has importance in the material world and to do so in straightforward terms (e.g., for every dollar of ODA provided by a donor state, a recipient state's level of democracy increases by 1 percent); and

5. *Discussion.* After you have tested your hypotheses, you should engage in a discussion of any issues, broadly defined, that emerged during your analysis. For example, it is very likely that not all of your expectations will be supported by your analysis. Why is this the case? Is this a function of poor theorizing? Poor tests? You should explore these questions, as well as others that come to mind as you work on your paper. Perhaps you might go about amending your theory or exploring

the robustness of your findings by removing influential cases from your sample. Again, be skeptical and try exploring issues and questions that you suspect an average *reviewer*, a person with some expertise in your areas of research, might raise in an assessment of your research. In short, you are to assess where you went right and where you went wrong and to determine what you've learned from your tests of your theoretical expectations.

# 8 The Introduction & Conclusion

At this juncture, you should have rough drafts of your research question, literature review, theory, hypotheses, research design, and analysis sections, and it is time to turn your attention to crafting two short, but essential, components of your project: *the introduction and conclusion*. Certainly, there are myriad ways that one might proceed in writing these two sections. Here, I identify what I consider to be the basic goals of these sections, as well as their general structure in political science research reports. While your creativity in terms of form is welcome, keep in in mind that it is necessary for you to accomplish these goals in some manner. The remainder of this guide is divided into two subsections, the first covering the structure of the introduction, and the subsequent subsection covering the conclusion.

## 8.1 The Introduction

Your introduction is designed to communicate several items in a very compact space, and by compact I mean no more than two (2) double-spaced pages, or about six paragraphs.

1. *First Paragarph/Research Question.* No matter how you choose to introduce your inquiry, perhaps beginning with an example of your puzzle (something gripping would be nice), it is absolutely imperative that you identify your research question somewhere in this first paragraph, and place this question in *italics*, so that there is absolutely no question in the mind of readers what question you are investigating. Sometimes, authors simply identify the question, or questions, in the first sentence of the first paragraph, and discuss why said question reflects political behavior that is puzzling. Alternatively, some studies begin with a vignette (During the Falklands War, Argentina sought third party mediation with the United Kingdom, but during the Soccer War, Nicaragua did not seek third party mediation...). A transition is then made from the vignette to a statement of the question. The choice of style is yours, but make sure your research question is nestled somewhere in this first paragraph;

2. *Prior Research.* Some studies follow up the first paragraph with a paragraph that outlines the major research threads relevant to the aforementioned research question, summarizing the arguments and findings

of each thread in a sentence or two, with a parenthetical citation including the most important examples of a particular thread. This paragraph should be formulated such that a smooth transition occurs with the subsequent paragraph focusing on your study's relevance. Finally, you should be conveying more than simply that prior research "hasn't done something," but that what this literature has overlooked is important. Or, that resolving a debate in the literature remains and is important;

3. *Relevance of Study.* As noted in the previous point, in addition to identifying ground left unexplored by previous research, you need to state in plain terms just why this oversight is important and why this gap in the literature is important. Specifically, it is necessary that you convey to the reader why an investigation of said gap will help scholars understand important political behavior, i.e., the puzzle, left unexplained in the current literature;

4. *Preview of Findings.* Some authors develop a paragraph in which the results of the analysis, i.e., the hypothesis tests, are previewed for the reader. Such a preview is intended to convey the reader that you, the author, have some striking and important findings. Such a preview should furnish a tantalizing look at your most important finding (e.g., that something completely overlooked in the previous literature is critical to understanding a particular puzzle;

5. *Final Paragraph/Remaining Framework.* The final paragraph of your introduction should lay out the framework, or structure, of the remaining sections of your paper. Given that the basic structure of research reports in political science is are generally consistent, this paragraph is rather straightforward. First, it is necessary for you to walk the reader through the remaining sections of the paper. You can accomplish this task with very simple language, such as the following:

   > "In the paper's third section, I develop the theory."

   However, you might care to elaborate this basic language (keeping length in mind) with more specific references to the nuances of, for example, your theory section. Consider the following:

> "In the paper's third section, I derive a theory of learning from general behavior studies, tailor this theory to learning by states, and derive a set of expectations regarding the implications of state learning for third party mediation of interstate conflicts."

Perhaps is might be a good idea to, first, compose this paragraph with the basic language, and subsequently elaborate your language so that the references are more informative.

## 8.2 The Conclusion

In some respects, you have more flexibility in the structure of your conclusion than you do with the structure of your introduction. In terms of length, your conclusion may run slightly longer than your the introduction, but not by much. I recommend setting three double-spaced pages as your target length for the conclusion, and focusing on the following goals as you write:

1. *First Paragraph: The Paper's Purpose.* Briefly, you should revisit the puzzle that stimulated your inquiry and perhaps remind the reader why solving this puzzle is important for the greater body of knowledge (a) in this research agenda, (b) political science, and perhaps, (c) social science in general. Additionally, you should state your approach to addressing this puzzle—i.e., how you went about tackling said puzzle;

2. *Paper's Major Contribution & Implications.* Discuss your project's general, significant contribution to the study of the phenomenon of interest in *plain language.* By plain language I mean language that summarizes your study's contribution without slipping into technical gobbledygook and "in" buzz terms of which only experts are familiar (pretend that you are trying to convey what you did/found to a relative over dinner.) Finally, in similar language point out the potential implications of your research project for the general study of the phenomenon of interest. Specifically, inform the reader as to why the reader should take note of your work;

3. *Identify Strengths & Weaknesses.* It is prudent that you briefly discuss in an even-handed manner the strengths and weaknesses of your study. Doing so is, well, realistic, as there undoubtedly some, if even mild,

threats to your design, data, etc. In part, a short exploration of your study's limitations will enable you to preempt criticism by reviewers;

4. *Future Research.* Discuss where you might take your research project subsequently. What questions does your paper raise that are worth exploring? If there are some limitations to your study, what tests might be run in the future to test the robustness of your findings? Where do you see the research agenda moving in the future?; and

5. *Final Paragraph.* You should wrap up your paper with some final comments. You certainly have some flexibility in this regard. You might consider the policy implications of your findings, or touch again on the general implications of your findings. A "zinger" of a final paragraph would be nice, but it is not necessary.

# 9 Formatting Your Project

At this point, you have completed rough drafts of the introduction, literature review, theory and hypotheses, research design, analysis, and conclusion sections of your research project. It is now time to turn to the final details of your project, which includes formatting your project, such that it is presented in a clean, concise manner. Although the issues discussed in this section primarily concern formatting, do not avoid the weighty and crucial task of *editing* what you've written thus far, because it is absolutely necessary that you learn the skill of evaluating your own writing, learning the crucial sense of, and ability to, revise your own prose. Certainly, revising, or even wholesale rewriting, can be daunting. Yet, part and parcel of the incremental approach to project development, a theme central to this Guide, are the notions of rethinking, revising, and reworking of your project.

This short guide to formatting your research projects is divided into two parts. The first part discusses issues of formatting of the remaining components of your project, namely your title page, abstract, references, and tables and figures. The second part of the guide presents a checklist of items pertaining to all aspects of your project that you should consider prior to submitting your paper for final grading by you graduate professor.

# 10 Formatting

## 10.1 Title Page

While it might appear that the organization and content of a title page is intuitive, it is not. It is important that you include the following information on your title page:

1. Title. Titling your paper is more important than you might think. This is the case, because the title is often the text by which interested readers locate your research. As such, it is important that your title reflect the *key words* that you think interested readers would employ in searching electronic databases for your work. Often, the practice is to develop a catchy turn of phrase, followed by a colon, followed by a sentence that reflects important aspects of your inquiry, specifically the dependent and primary independent variables. For example, a paper that I wrote with a former graduate student, Dylan Balch-Lindsay, is

entitled, "Killing Time: The World Politics of Civil War Duration, 1820-1992." People often refer to this paper as the "'Killing Time' paper," but it is probably self-evident that interested readers would likely not search for this paper under the key words "killing," "time," or even "killing time," but rather with terms such as "civil war" and "duration." Alternatively, some authors place their research question directly in the title, and you might contemplate this strategy, as well;

2. Contact Information. It is important that you report your full name, affiliation, surface address, phone number, fax number, and electronic email in a stacked format, centered on the title page. If you don't have an office phone or fax number, use the numbers for the UNT Department of Political Science;

3. Date/Version. As you are well aware from your experience in this seminar, professional papers undergo several sets of revisions prior to completion. It is important that you report a version number or date on your title page, so that you, as well as readers making reference to your work, can keep track of which paper you/they are revising/referencing;

4. Key Words. Some journals require the reader to supply a set of 6-8 key words that reflect the important components of the study. Identifying a set of key words is optional for this seminar, but it might be worth doing so for the sake of exercise. Place your list of key words, left justified, under the version number of your paper, and following the intuitive identification, "*Key Words:*"; and

5. Footer Information. You will notice that professional papers include a footnote, or "footer," on the bottom of the title page. These footers include several bits of important information:

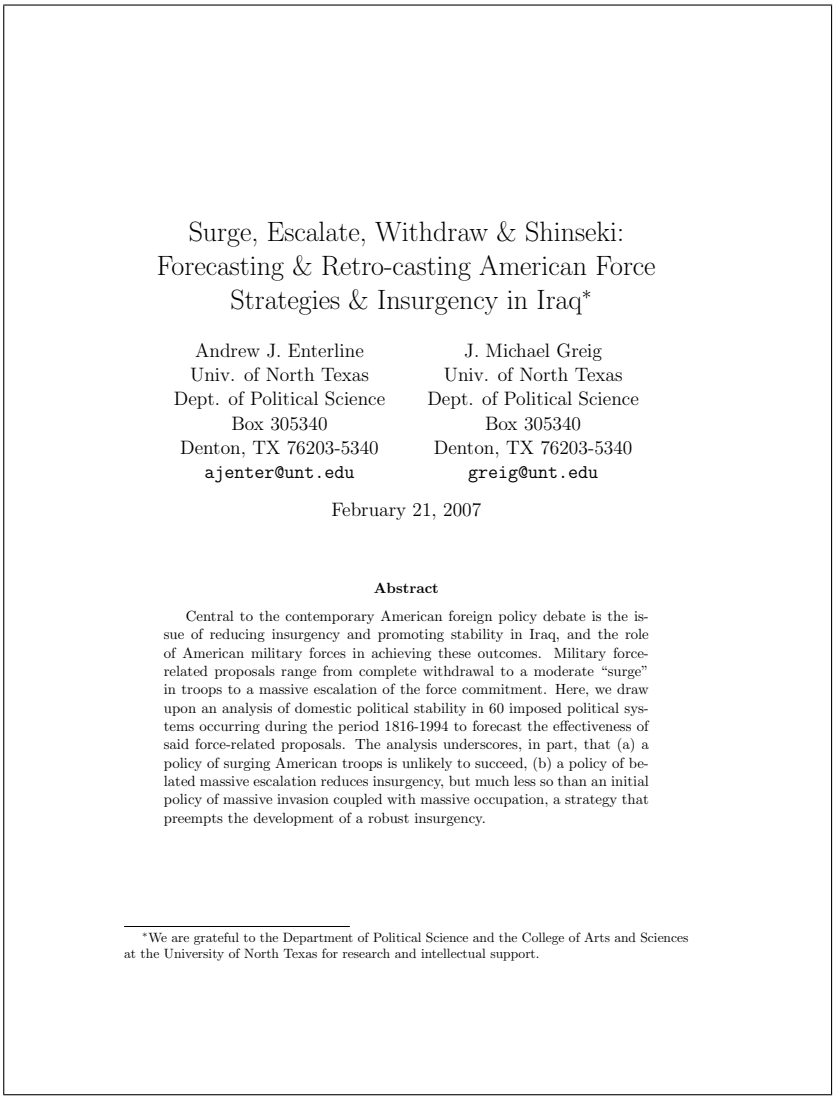
   (a) Identification of the conference (e.g., American Political Science Association) and date and location (e.g., August 24-27, Boston, Massachusetts);

   (b) Thanks to anybody that commented on a draft of your work, or assisted you in any way (a good place to mention your committee members); and

   (c) Some mention of the fact the paper is in draft form, and while comments are certainly welcome, the author requests that any

scholar wishing to cite the paper seek permission from the author first. Sometimes, there is a disclaimer that readers "not quote or cite the paper without the author's explicit permission."

An illustration of the general idea underlying a project title page is in Figure 1:



Surge, Escalate, Withdraw & Shinseki:
Forecasting & Retro-casting American Force
Strategies & Insurgency in Iraq*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**Abstract**

Central to the contemporary American foreign policy debate is the issue of reducing insurgency and promoting stability in Iraq, and the role of American military forces in achieving these outcomes. Military force-related proposals range from complete withdrawal to a moderate "surge" in troops to a massive escalation of the force commitment. Here, we draw upon an analysis of domestic political stability in 60 imposed political systems occurring during the period 1816-1994 to forecast the effectiveness of said force-related proposals. The analysis underscores, in part, that (a) a policy of surging American troops is unlikely to succeed, (b) a policy of belated massive escalation reduces insurgency, but much less so than an initial policy of massive invasion coupled with massive occupation, a strategy that preempts the development of a robust insurgency.



*We are grateful to the Department of Political Science and the College of Arts and Sciences at the University of North Texas for research and intellectual support.


Figure 1: Example Title Page.

## 10.2 Abstract

The abstract for your paper appears on the second sheet following your title page (though some typesetting software, such as LaTeX, place the abstract on the title page.) Often, the second sheet following the title page contains only the project title and the abstract. Like your title page, the abstract page is unnumbered. The title of your project should be repeated above your abstract to facilitate the double-blind review process, in which some graduate student in some journal editorial office literally "tears off" the your title page, leaving the abstract page to serve as an anonymous title page for distribution to reviewers. The purpose of your abstract is to provide the reader with a synopsis of your project in 250 words or less. The brevity of an abstract requires that you be concise in summarizing the purpose, theory, design, and major conclusions of your project (perhaps, literally one sentence for each of these components.) You might begin by allotting one short sentence to each component of your project (e.g., prior research, research design, findings), and then trim words where necessary to get under the 200 limit.

## 10.3 References

Your list of references should begin on a new page following your endnotes and prior to the reporting of your figures and tables, and should be preceded by a straightforward heading, such as "References." Given the premium placed on length by journal editors, your references should only include those sources that you cite directly in the text of your paper. Your references should be in alpha order and follow a consistent style (e.g., the "Harvard" style of parenthetical citation and bibliographic entry is very popular in the political science literature (type "harvard bibliography style" into an internet search engine and you'll encounter ample examples.)

## 10.4 Footnotes or Endnotes

Most journals require that you include *endnotes*, rather than footnotes, and that these endnotes be located after the conclusion section, and prior to the section listing your references. While footnotes are sometimes more convenient, because they alleviate the need for a reader to flip back and forth between text and endnotes, footnotes can often be reported in agonizingly small type fonts, thereby making them difficult to read. My recommendation

is to use *endnotes*, making the text size consistent with the text in the main body of the paper (i.e., 12 point type.) If you insist on using footnotes, then make the text no smaller than 11 point, regardless of whether this increase in point size causes notes to "spill" over to a subsequent pages.

## 10.5 Tables & Figures

Tables and figures are likely central to your study and your communication of your ideas and tests of your expectations. Therefore, the readability and clarity of your visual aids are at a premium. Your tables and figures are reported following your references (although, as with the footnote/endnote issue, scholars will sometimes place tables and figures in the text for the first round of peer reviews, and then comply with the standard location when an article is submitted for publication.) The tables are listed first in sequential order, followed by your figures listed in sequential order. In your text, you should reference each table and figures with the following reference (centered on the page, with double spacing before and after):

[Table X About Here]

Each table and figure, no matter how small, should appear on a *separate*, numbered page. If need be, figures should be arranged in landscape fashion, such that they are large and readable by the reader (not those puny figures that transfer directly from STATA, but you might find it necessary to increase the size of the graphic, so that it measures perhaps a minimum of 6"×6".)

Your tables should be devoid of clutter, and by clutter I mean unnecessary horizontal and vertical lines, known as "cut lines." Initially, it might seem like a helpful idea to sub-divide each "cell" in a table with horizontal and vertical lines. Unfortunately, this graphic strategy is actually a very *bad idea* that results in documented cases of "reader-vertigo" and a general inability to allow tables and figure to accomplish their intended effect—i.e., transmit information rapidly to the reader. Let me provide you with an example. In Table 1, I've employed a graphic strategy of sub-dividing each cell in this table with a maximum of horizontal and vertical lines.

Now, consider the same table, but with horizontal cut lines used sparingly, and vertical lines eliminated entirely. Generally, Table 2 presents a much less cluttered presentation of identical information reported in Table 1. More importantly, Table 2 is easier for the reader to digest. This said, there are

Table 1: Externally Imposed Democracy in Sri Lanka, 1948-94 (*Maximum Subdivision*).

| Polity 3d Case # | Start Year | End Year | DEMAUT |
|---|---|---|---|
| 12810 | 1948 | 1960 | 7 |
| 12820 | 1960 | 1970 | 7 |
| 12830 | 1970 | 1977 | 8 |
| 12840 | 1977 | 1978 | -88 |
| 12850 | 1978 | 1982 | 5 |
| 12860 | 1982 | 1993 | 3 |
| 12870 | 1993 | 1994 | 7 |

*Note*: Data are from *Polity IIId*.

certainly instances in which additional horizontal (but rarely vertical) lines are employed to aid the reader's digestion of a table. For example, consider Table 3. Here, additional horizontal lines are employed to subset associated variables and to help the reader wade through a rather lengthy table.

Table 2: Externally Imposed Democracy in Sri Lanka, 1948-94 (*Minimum Subdivision*).

| Polity 3d Case # | Start Year | End Year | DEMAUT |
|---|---|---|---|
| 12810 | 1948 | 1960 | 7 |
| 12820 | 1960 | 1970 | 7 |
| 12830 | 1970 | 1977 | 8 |
| 12840 | 1977 | 1978 | -88 |
| 12850 | 1978 | 1982 | 5 |
| 12860 | 1982 | 1993 | 3 |
| 12870 | 1993 | 1994 | 7 |

*Note*: Data are from *Polity IIId*.

Table 3: Logit Models Imposed Democracy and Democratization.

| | 1909-94 | | 1946-94 | |
|---|---|---|---|---|
| | (1) | (2) | (3) | (4) |
| Minimum Distance, Bright Beacon | 0.012 | | 0.034 | |
| | [0.047] | | [0.055] | |
| Minimum Distance, Dim Beacon | 0.140* | | 0.172* | |
| | [0.069] | | [0.086] | |
| Contiguity, Bright Beacon | | -0.285 | | -0.504 |
| | | [0.407] | | [0.424] |
| 1-950 km. Band, Bright Beacon | | -0.008 | | -0.136 |
| | | [0.147] | | [0.153] |
| Contiguity, Dim Beacon | | -0.247 | | -0.211 |
| | | [0.293] | | [0.322] |
| 1-950 km. Band, Dim Beacon | | -0.793* | | -0.772* |
| | | [0.342] | | [0.356] |
| State-Year, Bright Beacon | -0.466 | -0.509 | -0.962+ | -1.021* |
| | [0.412] | [0.393] | [0.502] | [0.490] |
| State-Year, Dim Beacon | 0.063 | 0.15 | -0.009 | 0.031 |
| | [0.469] | [0.480] | [0.541] | [0.535] |
| $\text{Polity}_{t-1}$ | -0.087** | -0.084** | -0.074** | -0.069** |
| | [0.012] | [0.011] | [0.012] | [0.011] |
| Severity of Interstate Relationships | -0.255+ | -0.255+ | -0.202 | -0.189 |
| | [0.141] | [0.147] | [0.142] | [0.153] |
| $\text{Government Crises}_{t-1}$ | 0.189* | 0.191* | 0.236** | 0.235** |
| | [0.083] | [0.084] | [0.089] | [0.090] |
| $\text{Revolutions}_{t-1}$ | 0.409** | 0.417** | 0.370** | 0.377** |
| | [0.104] | [0.100] | [0.104] | [0.099] |
| Urbanized | 0.062** | 0.061** | 0.054** | 0.055** |
| | [0.012] | [0.012] | [0.013] | [0.013] |
| $\text{Urbanized}^2$ | -0.001** | -0.001** | -0.001** | -0.001** |
| | [0.000] | [0.000] | [0.000] | [0.000] |
| Constant | -4.963** | -3.691** | -5.161** | -3.459** |
| | [0.630] | [0.152] | [0.774] | [0.166] |
| Wald $\chi^2(df = 10, 12, 10, 12)$ | 154.01 | 165.55 | 119.05 | 127.56 |
| Log-likelihood | -1305.11 | -1303.04 | -1143.45 | -1142.99 |
| $p$ | 0.000 | 0.000 | 0.000 | 0.000 |
| N | 7,170 | 7,170 | 5,855 | 5,855 |

*Note*: Logit coefficients. Robust standard errors (clustered on state) in brackets. + sig. at 10%; * sig. at 5%; ** sig. at 1%. (two-tailed).

Tables and figures often employ "*Notes*:" below a table or figure's bottom line or edge. You should use this space to report the source of the data, the key for statistical significance, and any other information that would provide helpful to the reader in its interpretation of the visual aid. Your tables and figures should be clearly marked with informative titles.

As noted above, sometimes it is useful from the reader's standpoint to include tables and figures within the flow of the text at the approximate location that they are referenced. If you choose to do so, then said tables and figure should be placed as such. Whether these table and figures should be made portrait or landscape is also a matter of style. This said, examples of within-text table and figure appear in Table 2 and Figure 4, respectively.

**Table 1:** Strategies & Parameters for Forecasts & Retro-casts of Insurgency in Iraq (2007).

| | Force Contributions | | | | Armed Forces |
|---|---|---|---|---|---|
| Strategy | Iraq | British | American | Total | Per Capita |
| Baseline (2006) | 134,000 | 7,200 | 132,000 | 273,200 | .95 |
| Surge | 134,000 | 7,200 | 153,500 | 294,700 | 1.02 |
| Escalate I | 134,000 | 7,200 | 500,000 | 641,200 | 2.23 |
| Escalate II | 134,000 | 7,200 | 1,000,000 | 1,141,200 | 3.96 |
| Withdrawal I | 65,500 | 0 | 0 | 65,500 | 0.23 |
| Withdrawal II | 134,700 | 0 | 0 | 134,700 | 0.47 |
| Shinseki I | 0 | 8,900 | 500,000 | 508,900 | 1.77 |
| Shinseki II | 300,000 | 30,000 | 500,000 | 830,000 | 2.88 |

*Note*: Iraq's population is set to 28,807,000.

#### 3.2 Escalation

An alterative to the surge strategy is a strategy of escalation, or the significant increase in American force commitments in Iraq in 2007. For the purposes of illustration, we assess the impact of an increase American combat force levels to two levels, 500,000 and 1,000,000 troops (Escalation I and II, respectively), the corresponding parameters for which are reported in Table 1 (p. 6). While one might argue that these two force levels are beyond the capability of the American military's reserve capacity and are therefore implausible to some degree, carrying out these simulation enables us to determine whether raising such forces, perhaps through conscription, is a solution to the problems plaguing contemporary Iraq.)

Our forecasts of the escalation strategy indicates that raising American force levels to 500,000 troops reduces the probability of insurgency to approximately

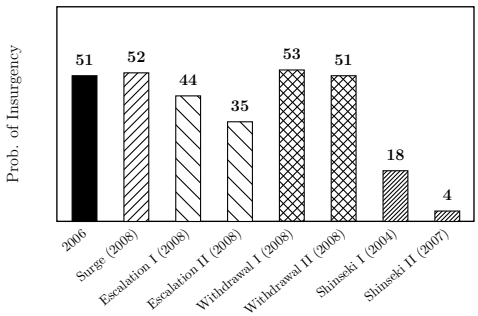
6

Figure 2: Example of Table in Text.

# 11 Final Checklist

As noted above, an important component of your project is form. Projects are complex, and when the time arrives to submit your project for review by a professor or grad student colleague, it is important that you tie up any

**Figure 3.1:** Mean Predicted Probability of Insurgency in Iraq (Various Strategies).




7

Figure 3: Example of Figure in Text.

loose ends in terms of formatting. This section of *The Guide* provides you with a checklist of items that should enable you to to verify that your project contains all of the basic components associated with a professional political science report, regardless of subfield.

## 11.1 General Formatting

1. ___. The main body of the text is in 12 point type and is double-spaced;

2. ___. Page numbers appear on every sheet but the first three (i.e., the title, abstract and first page are numberless);

3. ___. One-inch margins (left, right, bottom and top) are used throughout the text;

4. ___. Headings, sub-headings, and sub-sub-headings (consistently hierarchical) are employed to sub-divide the text; and

5. ___. The paper is approximately 40 *sheets* in length (i.e., everything included—title page, abstract page, main body of text, endnotes, references, tables, and figures.)

## 11.2 Specific Formatting

## 11.3 Title Page

1. ___. See Figure 1, p. 31, above;

2. ___. Title of the project contains the key words central to the study (and those that readers would use to search out your project), principally your dependent and primary causal variable(s);

3. ___. The title is centered on the top third of the page;

4. ___. Your surface and electronic contact information is present and centered in the middle of the page;

5. ___. A draft date or version number is present on the lower third of the page; and

6. ___. An informative footer is present, with appropriate thanks, location of presentation, and disclaimers.

## 11.4 Abstract

1. ___. The project's title appears centered at the top of the page;
2. ___. The heading "Abstract" appears left justified above the abstract proper;
3. ___. The abstract identifies for the reader the purpose of the study, its framework, and the most important conclusion in 200 words or less;
4. ___. The abstract is in 12 point type and is double-spaced; and
5. ___. The remainder of the page is anonymous.

## 11.5 Introduction

Generally, the introduction of your project should accomplish the following:

1. ___. The first paragraph introduces the research puzzle/question, and this question is literally *emphasized*;
2. ___. The second paragraph summarizes previous research very briefly; that is, its strengths and weaknesses;
3. ___. The third paragraph explains how your study will solve the outstanding puzzle/research question, identifies your innovation and informs the reader about how you will add to the literature in a productive manner;
4. ___. The fourth paragraph previews your conclusions in terms of major finding and claims; and
5. ___. The fifth paragraph explains the layout, or framework, of the remainder of the paper;

## 11.6 Literature Review

1. ___. The first paragraph explains to the reader how you are going to organize your treatment of the literature (e.g., "...prior work subdivides along two levels of analysis: a) systemic explanations for war, and b) domestic explanations for war. I discuss the central arguments and findings of each sub-literature, in turn.");

2. ___. Sub-divisions of the literature are clearly marked and sufficient transitions developed; and

3. ___. The final paragraph provides a well developed transition to the theoretical section; that is, you inform the reader that, given the literature you just reviewed, more work is necessary in order to address the puzzle set out at the start of your paper, or that you find some aspects of previous research helpful, you need to innovate to really address the puzzle.

## 11.7 Theory & Hypotheses

1. ___. Your theory section isolates the causal mechanism(s) that are central to the aforementioned puzzle;

2. ___. You are explicit in making assumptions about relationships and conditions pertaining to your theoretical arguments;

3. ___. You are explicit in the reasoning underlying your expectations and hypotheses;

4. ___. Substantive (i.e., historical or hypothetical) examples are provided to illustrate your claims and arguments;

5. ___. Your hypotheses are clearly labeled and concisely stated;

6. ___. The concepts contained in your hypotheses are clearly defined;

7. ___. You are consistent in your language across the hypotheses; and

8. ___. Your theoretical explanation flows evenly and smoothly, such that transitions between expectations are not abrupt or artificial via sub-headings (in a word, develop *transitions*.)

## 11.8 Research Design

1. ___. The first paragraph outlines the basic parameters of the study in terms of the way in which you intend to test your expectations.

2. ___. Your unit of analysis, spatial and temporal domains, and the method by which you selected your cases are clearly stated;

3. ___. Your dependent variable concept is clearly operationalized, data sources are clearly documented, and descriptive statistics provided;

4. ___. Your independent variable concepts are clearly operationalized, data sources are clearly documented, and descriptives statistics provided; and

5. ___. Your choice and rationale for choosing a methodology for testing your hypotheses are clearly identified.

## 11.9 Analysis

1. ___. You begin your analysis by refreshing the reader's memory regarding your theoretical expectations;

2. ___. You carefully walk the reader through the assessment of your expectations;

3. ___. You DO NOT simply verbalize the information in your tables (e.g., "...and variable X is statistically significant at the .05 level"); rather, you inform the reader of things the reader would not know, or might miss, from surveying the visual aids unguided. Additionally, you paint comprehensive picture based on the analysis. Avoid the proverbial laundry list-like discussion, and seek to tie your analysis directly back to evaluating your theory;

4. ___. You conclude your analysis by discussing the implications of your findings and addressing any threats to the validity and robustness of your analysis; and

5. ___. You are downright skeptical about your ability to observe truth, and as a result, are sufficiently guarded in your assessments and conclusions about whether you are right! Remember, all social science knowledge is provisional.

## 11.10 Conclusions

Loosely, your conclusions should be organized as follows:

1. ___. The first paragraph recapitulates the puzzle of interest and summarizes your strategy for solving the problem;

2. ___. The second paragraph summarizes your most important findings;

3. ___. The third paragraph discusses the implications of your findings for current scholarship;

4. ___. The fourth paragraph identifies questions for additional research (i.e., tell the reader how rich and important your research agenda will be); and

5. ___. The final paragraph should surmise about the relevance of your study for policymaking, any overarching inquiries and debates in your subfield, and political science in general.

## 11.11 Footnotes or Endnotes

1. ___. Your endnotes (preferred) are 12 point type and located following your conclusion section; and

2. ___. If you use footnotes, they are reported in text *no smaller* than 11 point type;

## 11.12 References

1. ___. They are listed in alpha order;

2. ___. They rely on a consistent style;

3. ___. They are 12 point type; and

4. ___. They are double-spaced;

## 11.13 Tables & Figures

1. ___. Tables and figures are clearly labeled and the labels are informative;

2. ___. Each table and figure is placed on a separate page;

3. ___. The tables and figure are numbered sequentially (e.g,. Table 1, Table 2, Table 3, and Figure 1, Figure 2, Figure 3); and

4. ___. Tables follow the references, and figures follow the tables.

# 12 Presentation of Your Project

At this point, you now have in hand an (approximately) 40-page rough draft of your social science project, and now your are turning to the task of presenting your work to your research. In political science, there are likely to be three occasions when it will be necessary to present your work publicly in a professional capacity:

1. A professional conference (e.g., the American Political Science Association, APSA);
2. An invited talk in another political science department; and
3. A job, or interview, talk.

The remainder of this guide to presentations will focus on the *first two types* of presentations, because they are very similar in format and purpose. Later versions of this guide will be elaborated to include job talks.

## 12.1 Successful Conference Presentation

There are several general keys to making a good presentation. Some of these keys concern matters of format (e.g., the design of your slides), while others concern matters of presentation, or the verbal communication of your ideas to your audience (e.g,. speaking to the audience rather than to the silver screen.) Before addressing the issue of formatting, there are several general items to keep in mind:

1. *Be Succinct.* Your presentation slides, your verbal presentation of your project, and your response to questions should be delivered in a concise fashion;
2. *Pauses.* Pacing your presentation and relying on comfortable pauses as you move from one slide to the next, or consider a question, are okay. Do not begin to believe that pauses are bad form, and keep in mind that what you think is an excruciatingly long pause is likely less lengthy for your audience. In general, it is important to learn to pace yourself, and occasional pauses are part of proper pacing;

3. *Composure.* Always maintain your composure, regardless of whether you are nervous or whether a question rattles you such that you don't have a ready answer. Indeed, you might find yourself responding to a question in the following manner: "That is very good question, and I'll have to consider it a bit more. Perhaps we can discuss the issue further following my presentation";

4. *Face the Nation.* Look at directly at your audience and make eye contact. Do not find yourself speaking down to your notes, speaking at the overhead projector or projector screen, because doing so might result in the following:

   (a) The audience becomes less confident in your command of the material; and

   (b) You lose the opportunity to make eye contact with your audience, and as a result lose an opportunity to transmit your positive energy and excitement;

5. *Never Read.* Never, *ever* read your research paper or notes verbatim. You must be able to present your research without providing the dreaded "book on tape." When faced with the prospects of hearing a research paper read aloud, most academics would rather read it on their own time;

6. *Visibility/Readability.* In addition to succinctness, your visual aides should be readable, and this means relying on font sizes that are at least *16 point type*; and finally

7. *Energy & Positive Vibes.* Emitting strong energy, excitement, and what might be referred to as positive "vibes" is important. Indicating to your audience that you are excited about your research will, I think it is safe to argue, influence the audience's interpretation of your research. At the very least, positive energy will convince your audience that your efforts, however flawed, are worthy of constructive criticism.

## 12.2 Format

This section of the guide provides short descriptions of the presentation slides in an academic presentation. On average, you should anticipate about 3-4

minutes per substantive slide (i.e., excluding the title slide), but given that your available time might vary from 12 to 30 minutes, you need to be flexible, such that for example, if you only given 12 minutes to present your work, you skip the slide devoted to prior research and focus on the slides central to your work. The standard presentation format maps pretty closely the format of your project, and includes slides devoted to the following items:

1. Title;
2. Research Puzzle/Question;
3. Prior Research;
4. Theory & Hypotheses;
5. Research Design;
6. Analysis; and
7. Conclusions & Implications.

### 12.2.1 Slide 1: Title

The purpose of the title slide is straightforward, and it is to communicate your project's title, your full name, university affiliation, and the date that you are delivering your presentation. As with every slide, the readability of your slide is paramount, so you should employ a layout that will be easily read by a member of your audience (if you're unsure, project it on a screen and pretend to be an audience member. Is it readable?) The title of your paper should appear first and in text that is larger (perhaps 18 point type) than the remaining information on the slide. The remaining information, either left justified or centered, should follow in smaller type (16 or 14 point type).

### 12.2.2 Slide 2: Research Puzzle/Question

This slide should begin with the the following heading, large and in bold at the top the slide (centered or left justified): "Research Question" or "Research Puzzle." In stating your research question, you should consider how you might state it as succinctly as possible, while still retaining the relevant


Figure 4: Example of Presentation Title Page.

information. You might even find that refinements to your research question can be re-applied to the text of your research project. Finally, it might very well be the case that your research concerns one or two sub-questions. These subsidiary questions might be noted on this slide, as well, but they should be bulleted such that they are smaller in type size and indented under the primary research question, so that they don't in anyway distract the audience from your primary question. In general, though, it is advised that you only report your primary research question, while verbalizing the fact that your research also touches on several subsidiary questions.

### 12.2.3 Slide 3: Prior Research

This slide should begin with the the following heading, large and in bold at the top the slide (centered or left justified): "Prior Research." Following a space, you should organize *exemplars* (e.g., examples) of various threads in previous literature that bear on your research question under indented headings. The organization of this slide should reflect your organization of the literature review in your paper. That is, if identify four relevant approaches

in the literature, then four short sub-headings, followed by examples of each approach should be noted. Be aware of the fact that *this is not the place for you to try to parenthetically cite every piece of relevant work*, or even discuss them in anything but general terms. Recall, that the first paragraph of the literature review in your paper should provide the reader with the manner in which you will organize your discussion of said literature. This organization, or framework, should appear on this slide, accompanied by one or two parenthetical citations. In addition to noting snippets of the literature of interest, you should tell your audience why and how this literature bears on your puzzle.

#### 12.2.4 Slide 4: Theory & Hypotheses

This slide should begin with the the following heading, large and in bold at the top the slide (centered or left justified): "Theory & Hypotheses." It is paramount that the information presented on this slide be clear and concise. In terms of the theory, you should identify your primary theoretical claim. You will not be able to elaborate your theory on this slide, but you should be able to reveal its *core logic* to the audience, be it in the form of mathematical equation or a written assumptions and deductions. Following this statement of your theory, you should turn to stating your hypotheses, and these should be clearly marked and easy to read from 10-15 feet. Again, space is at a premium on this slide, so you will need to consider whether your hypotheses can be made more concise without losing their essence. In turn, this process of refinement might enable you to revise the statement of these hypotheses in your paper. Whatever you do, do NOT jam the slide full of text. Bullets are intended to be followed by phrases or words, not complete, multi-line sentences.

#### 12.2.5 Slide 5: Research Design

This slide should begin with the the following heading, large and in bold at the top the slide (centered or left justified): "Research Design." Research designs are naturally packed with a great deal of information, and it is difficult to distill the basic components of a research design for presentation on a single slide. Be that as it may, one potentially efficient method to facilitate such a task is to present a table in order to organize the essential information in your research design. An example of such a table appears in Table 4,

below.

Table 4: Example of Table Reflecting Research Design Information

| *General* | | |
|---|---|---|
| Component | Parameter | Sample |
| Space | Spatial Unit | N Spatial Units |
| Time | Time | $\text{Time}_t$–$\text{Time}_{t+n}$ |
| Units of Analysis | Space-Time | |
| Sample Size | N | Space×Time |
| *Operationalization* | | |
| Concept | Variable | Source |
| Concept 1 | Variable 1 | Source 1 |
| Concept 2 | Variable 2 | Source 2 |
| Concept 3 | Variable 3 | Source 3 |
| Prosperity | $\text{GDP}_{pc}$ | World Bank |
| *Methodology* | | |
| OLS Regression | | |

Given the fact that it is nearly impossible for the research design slide to literally reflect all of the information contained in the research design section of your paper, it is important for you two verbalize this information, filling in where information in the table is abridged or absent due to space considerations.

### 12.2.6 Slide 6: Analysis

This slide should begin with the the following heading, large and in bold at the top the slide (centered or left justified): "Analysis," or "Hypothesis Tests." As with the slide reporting your research design, your slide reporting your hypothesis tests is also likely challenged by a shortage of space. Therefore, it is critical that you report only the most important information from

your analysis. Due to the fact that you need to keep your text large (i.e., at least 16 point font size), simply inserting a table reporting the results of a regression model directly from your paper may be either impossible (e.g., said table spills of the slide), or inefficient (e.g., it is too cluttered with information to be readable in a large size font.) So, you should trim inessential or redundant information from your table before inserting it into your slide presentation. For example, if you are reporting t-statistics and probability levels corresponding to each coefficient in a regression specification in your paper, then only report one of these pieces of information (i.e., the t-statistics, but not the probability levels, or vice versa) in the table that you insert into your analysis side.

### 12.2.7 Slide 7: Conclusions & Implications

This slide should begin with the the following heading, large and in bold at the top the slide (centered or left justified): "Conclusions & Implications." This is the final slide in your presentation (although you might have additional slides at the ready to address anticipated questions from the audience.) This slide should lay out two subsets of information. The first subset of information, your general conclusions, should consist of three of four bullets summarizing your conclusions with key words. The second subset of information (if you choose to include this at all) identifies what you think are the implications of your project for the study of your research question and the subsequent course the broader research agenda (e.g., human rights.) Again, keep the text following your bullets brief, and rely on verbal communication to elaborate your points.

## 12.3 Presentation Checklist

As with the guide to the final details of assembling your social science project, two brief checklists are provided to ensure that your slide presentation contains the basic elements of a sound professional presentation. The first checklist focuses on the *characteristics of your slide presentation*, while the second checklist focuses on items that are related to your *presentation* of your slides to an audience.

### 12.3.1 Slide Presentation

The following checklist focuses on the characteristics your presentation slides:

1. ___. The font point size on my slides is *no smaller* than 16 point;
2. ___. I've trimmed the amount of text on each slide to the *absolute minimum*;
3. ___. Any table and figures are clearly labeled, but efficient in terms of presentation;
4. ___. You haven't selected a color scheme that risks burning my audience's corneas. For example, never, ever employ yellow text on a bright blue background. While monochrome (i.e., black text on a clear background) is easy and makes for easy copying onto overhead slides, black text on a neutral background (e.g., a salmon color) might be more pleasing to the eye. If you don't have flair for graphics, ask a few colleagues to test out the corneas on your presentation;
5. ___. The slides are uncluttered, and easily readable from 10-15 feet. That is, you neither have the "microscopic effect" of tiny text, nor do you have the equally vexing "billboard effect," in which the text is so large that it's impossible to read; and
6. ___. Your slide are numbered, with numbers in the lower right hand corner or centered. The numbering should be large, so that audience members might see them and refer to them if they wish to ask a question in conjunction with you re-presenting a specific slide.

### 12.3.2 Delivery of Presentation

The following checklist items focus on the basic characteristics your presentation of your slides; that is, your method of presentation:

1. ___. You are relaxed and well rested (if not the former, take deep breaths and try to calm yourself. You know this material and should be confident in your abilities, and most of the time, it's not the end of the world if things don't proceed perfectly as planned);

2. ___. You've practiced your presentation, such that you are intimately familiar with the information on your slides;

3. ___. You pace yourself and are unafraid of pausing to gather your thoughts;

4. ___. In taking questions you follow this procedure:

   (a) Jot the question down in shorthand on your pad. Some academics can't resist asking multi-part questions, and so you might need to keep track of more than one question;

   (b) Respond to every question with the following: "That is a very good question. . . ";

   (c) Even if you have a ready answer to the question, pause and consider the question, and respond with pace; and

   (d) If you don't have an answer to a question, simply respond by stating that at the moment you don't have an answer, reiterate that the question is valuable, and state that you'll need to think about it some more;

5. ___. You (and perhaps your committee) have spent some time thinking about points of vulnerability, or areas likely to elicit questions, in your project, and you have discussed possible answers;

6. ___. You have an identical hard copy of your slide presentation, and this hard copy is located in front of you on a lectern, and you flip through the hard copy as you flip through the slides (i.e., there's synchronized flipping.) Also, you can use the hard copy to jot some notes in red ink, so that you remember to state something, or have a figure at the ready;

7. ___. You have a blank pad and a working pen in order to jot down comments and questions from your audience; and

8. ___. *Optional for the Risk Averse*: if you are relying on a computer system to present your work, you have a backup set of translucent slides in the event of malfunction. A second order of backup would be a short handout that contains essential information from your slide presentation (e.g., research question, theory core, and research design, and results table) on two sides of a single sheet of paper (make perhaps 25 copies.)