Developing a Research Proposal

Previous chapters emphasized major principles of quantitative research and introduced a number of specific statistical techniques. These concepts and skills provide a set of tools that enable students to understand and evaluate academic research conducted in the fields of Political Science, Public Administration, and related fields. These tools also enable students to develop lines of original research within their chosen area of study. The focus of this chapter shifts from the detailed explanation of specific statistical tools to an emphasis on the application of some of those tools to a specific research question. Most of the final portion of this course is devoted to the development of a research proposal that provides the foundation for an original research project that will be completed as a part of Political Science 461.

Selecting a Research Question

The first, and most important, step in this process is the identification and development of a research question. A research question represents the central theme of an academic research project. Every aspect of the project must be coordinated in an effort to identify a substantive answer to the question posed by the researcher at the beginning of the process. A well formulated research question clearly frames the issue or issues under investigation and provides the basis for the construction of an effective research strategy and the development of meaningful conclusions that advance scientific understanding of a phenomenon.

Developing an effective research question requires more than merely identifying a topic or subject for study. Unfortunately, this is the only approach to research that many students have ever been taught. The “topic” approach generally does not provide students with sufficient
direction for their research because it fails to establish a precise objective for the project. Most students employing the “topic” approach produce highly generalized studies that read like encyclopedia entries on a subject, providing little depth of analysis and supporting few substantive conclusions. Research directed toward a specific research question, in contrast, provides a clear direction for the project and establishes a definitive standard for measuring the overall success of a research project.

The challenge to develop an effective research question is often a daunting task for those in major academic fields. Students often experience tremendous anxiety and stress during this portion of the research process. As the previous section indicates, the idea of developing a research question is a novel one for many students in this course. Many others are concerned because of their lack of experience with quantitative research and a fear that they will select a research question that does not lend itself to this method of inquiry. Be assured that such anxiety is common to almost every student enrolled in this course.¹

One of the most effective strategies of selecting research questions is to begin by identifying a set of subjects that are particularly interesting. Then take those general areas of study and attempt to identify more specific questions that can be addressed within them. Go into the academic literature in your chosen field to conduct a preliminary investigation of the questions other researchers are addressing. Some students choose to address an existing line of inquiry. Others identify areas that have not been addressed by previous researchers. Either approach can yield an interesting and effective question.

¹Even the person who now teaches the course encountered this stress level. Of course, this was many, many years ago when wooly mammoths roamed the earth, the ice had recently receded from Arkansas, and the wheel was still under development.
The next step in the process requires the student to formally state the research question. The research question should, by definition, be expressed in the form of a QUESTION! It should not be a statement of belief, expectation, or principle. An effective research question should be precise, clearly defining the issue or issues under investigation in a balanced and unbiased manner. Leading questions, unbalanced questions, and questions that employ emotionally charged language tend to imply that the researcher is prejudiced and call the integrity of any conclusions reached from the research process into question. The nature of this course provides one important limitation on the nature of the research question developed by students. The quantitative focus of the course makes it necessary to identify a research question that can be addressed using quantitative methods. Be sure that the question you propose is one that can be answered using this set of tools, but avoid stating your research question in overtly statistical terminology. The basic question should be conceptual, not statistical in nature. Focus on theoretical issues and leave terminology about statistically significant differences, variables, and confidence levels until later in the process.

The most important part of this process is GETTING STARTED! Do not allow fear of making a bad decision to prevent any decision. The process typically provides students with ample opportunity to modify and improve their initial research question based on information they gather as part of their research. Most research questions evolve somewhat from the initial stage in the process, but it is imperative that each student identify a question that gives their efforts some direction at the beginning of the process. The remainder of this section in the chapter provides a list of ten important suggestions that students should take into account when developing their research questions.
1. The question must be one that generates sufficient usable data. The data may be interval, ordinal or nominal, but must be quantifiable.
2. The question should not be too narrow. Sufficient data must be available to test multiple hypotheses.
3. The question should not be too broad. It will be impossible to provide sufficient depth to make the results meaningful.
4. The question must provide the basis for identifying dependent and independent variables.
5. Unless the researcher has a "before and after" research design, at least two clearly defined populations must be identified. The sizes of the populations must be large enough to justify the selection of random samples.
6. From the populations identified, clearly defined samples must be drawn. The sizes of these samples must be large enough to test meaningful hypotheses. Sample sizes should never be less than \( n = 10 \).
7. The question must address a subject which will enable a researcher to answer an overall research question and a series of related research questions.
8. Data sources must be readily available on the topic. In most cases, this means that the data can be obtained from the library, government resources such as the census bureau, or data sets made available by other researchers. If data are not available, the research cannot be done. This has been a "fatal flaw" in many past research designs. A multitude of data are available, but not for every topic.
9. Select a question that will enable completion of the project. Learning the process and improving writing skills are more important in an initial statistical research project than the actual findings.
10. Finally, one's intellectual curiosity should be a major factor in selecting a question. If the student has little or no interest in the subject matter, the project will be a boring chore which can have negative academic consequences.

Sample Research Questions

The following are titles of research reports which students have completed in past semesters that clearly define a research question. They are for review only. No recycled topics are permitted. General topical areas can be researched again, but a new approach to the topic must be used.

Initiative for State Term Limits? Is there a link between the existence of initiative in a state and term limits for state officials?

State Income Taxes: Who Profits? Does having an income tax affect state spending on social and other programs?

Voting Behavior in the United States House of Representatives: A Comparison of
Rookies and Veterans. Do Representatives who have served ten or more terms vote the same as those who have served two terms or less?

Extra! Extra! Read All About It! A Study of Newspaper Reading Habits and Political Participation in the American Political System. Do newspaper reading habits influence the degree of participation in the political process?

State Run Lotteries: Payoff or Pitfall? Do states with lotteries fare better than states without lotteries?

The Cost of Crime: Does law enforcement spending by states affect the crime rate?

Writing the Research Proposal

The formal research proposal must include a number of important components. It will frame the research question representing the central theme of the entire project. It will provide a discussion of the primary research hypothesis, information about the type of data collected, the populations and samples under examination, and preliminary strategies for measurement of important concepts. The proposal should demonstrate a clear set of objectives and the presence of a workable strategy for completion of the project.

The first section of the proposal should introduce the general subject matter that has been selected for research. Explain why the subject was selected. Demonstrate that the issue selected represents an important public policy concern and that it has a direct impact on the lives of many individuals in the community, the nation, or the world. Do not overlook the importance of this section of the chapter. The first impression created often influences the decision to continue reading or move on to another piece of research. The introductory section should not be too direct or overly specific. Do not merely launch into the writing process with the research question or a statement that “My topic
is ...” Instead, place the subject within a broad range of social, political, or other issues. For example, a student whose research question addressed public opinion related to school consolidation proposals in Arkansas should begin with an introductory section emphasizing the importance of education and the ongoing efforts of policymakers to gain a thorough understanding of the components of an effective education system. This approach places the chosen research subject within a broader range of interests and makes it more appealing to those who may live outside of Arkansas and be relatively unconcerned about its state politics.

After this general introduction is performed, shift attention to the more narrow and specific subject selected for examination. Explain how the selected topic relates to broader range of issues outlined in the first section of the chapter. Provide the rationale for selecting this topic and explain how it can be expected to make a positive contribution to the task of understanding the subject. This portion of the chapter should also introduce the overall research question that guides the research agenda. State the research question directly. Provide a thorough discussion of the rationale for selecting this research question and how the research project will be directed toward providing an answer to it.

Remember that every step in the process of construction and executing the research design and writing the report must be focused directly on the task of providing a substantive answer to the research question. If it is impossible to answer the research question at the end of the process, the structure and execution of the project are deeply
flawed.

Develop and state the primary research hypothesis following the explanation of the research question. Like the research question, the overall research hypothesis is to be stated explicitly within the text of the chapter. Notice that this is a research hypothesis, not a null hypothesis. A well developed hypothesis should continue to emphasize broad conceptual themes and avoid overtly statistical terminology. It should, however, identify the primary factors under examination in the study and state the expected nature of the relationships between them. Provide supporting information and evidence to provide a foundation for these expectations. Hypotheses may represent a guess about the relationship between factors, but they should not be a wild guess or hunch. Make sure the research hypothesis has a foundation in research, logic, or observation rather than the personal ideology or bias of the researcher.

An overview of the research agenda should follow the discussion of the research question and overall research hypothesis. Identify the dependent variable and at least one independent variable and provide a brief explanation of how they will be measured. Describe what each is designed to measure and discuss how the data will be collected and analyzed. Explain whether the data will be obtained from survey research, official government documents, international organizations, or private groups. Discuss the type of statistical tests to be employed and provide a brief explanation of the rationale for these choices. This aspect of the research may not be totally clear at this point, but it should be possible
to specify the nature of the data that will be used and where it is to be found. Corrections, further clarification, and additional details can be addressed in the revision process as the project unfolds.

Identify the level of analysis employed in the research project. Provide some basic information about the context in which the research is to be conducted. Does the project focus on individuals, communities, nations, etc.? Explain why this level of analysis has been chosen and how it is best suited to answering the primary research question. Identify the population under consideration in the research (i.e. all eligible voters in the U.S., the community of nations, etc).

The next section of the proposal should define the boundaries of the research project. While conscientious researchers strive to be as thorough as possible in their study of a topic, every research project is subject to certain limitations or boundaries. These boundaries may be established by limitations in the available data, a lack of resources, time constraints, or a variety of additional factors. This section should include a description of the limits of the research project. Issues related to the selected topic that will not be examined as a part of the research process should be identified and the rationale for excluding those issues should be clearly explained. For example, a researcher examining differences in the behavior of elected officials might choose to limit her efforts to a study of members of Congress rather than including officials at all levels of government. This provides a clear limitation for the research project by focusing
efforts on elected officials at a single level of government and could be justified by the need to ensure the selection of comparable samples.

Conclude the proposal by summarizing the objectives of the project and highlighting the potential value of the findings it will produce. Make sure that the proposal provides a clear research question and a defined strategy for answering that question using quantitative methods. Throughout the process, give extra attention to writing quality, grammar, and content. Carefully avoid any errors in spelling and punctuation. Many students pay little attention to the quality or their writing and fail to proofread their work effectively. The effectiveness of their writing suffers as a consequence. Simple errors in writing are highly distracting and may lead many readers to view the overall quality of a work in a dismissive manner. A lack of clarity and precision in writing makes it difficult to understand the ideas a writer is trying to convey. In contrast, those who choose their words carefully and spend time editing will produce much more effective and influential work.