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### PSC 502.01: MPA Research Methods

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PSC 502  
**MPA Research Method**  
 Fall 2004

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### **Course Description**

This course covers the essential ingredients for designing and carrying out both social science and applied research. These ingredients include defining the research problem, formulating hypotheses or research questions, operationalizing key concepts or variables, and choosing appropriate methods for gathering and analyzing data.

### **Course Objectives**

1. To understand the scientific method as a distinct way of "knowing reality."
2. To learn to distinguish social science research from applied research.
3. To develop skill in writing research designs.

A specific goal of this course is to encourage and enable students in the MPA program to complete their required applied research project.

### **Required Text**

Chava Frankfort-Nachmias and David Nachmias, Research Methods in the Social Sciences (New York: St. Martins, 2000).

### **Course Requirements**

Students are required to read all assigned readings, participate in class discussions, take one exam, and write two research designs (one social science and one applied). Drafts are worth 20 points, and final papers and the exam are worth 100 points each).

A+ = 333-340 points	B+ = 299-308	C+ = 265-274
A = 320-332	B = 285-298	C = 252-264
A- = 309-319	B- = 275-284	C- = 241-251

### **Weekly Assignments**

Wed., Sept. 8

The Scientific Method

Read Chapter 1 (pp. 2-7, 18-19), Chapter 2 (pp. 24-31), Chapter 3 (pp. 46-59), and Paul Trout's article "What Students Want."

Wed., Sept. 15      Concepts, Variables and Hypotheses

Review Chapters 2 and 3.

Wed., Sept. 22      Research Ethics and Institutional Review

Read Chapter 4.

Wed., Sept. 29      Operationalizing Variables

Read Kraft and Clary's article "Citizen Participation and the NIMBY Syndrome," paying careful attention to how the research problem was conceptualized and the variables operationalized.

**\*\*Problem Statement and Research Hypotheses Sections Due by Monday Oct. 4\*\***

Wed., Oct. 6      Types of Research Designs

Read Chapters 5 and 6.

Wed., Oct 13      Measurement and Sampling

Read Chapter 7 (pp. 138-149) and Chapter 8.

Wed., Oct 20      Survey Research and Questionnaire Construction

Read Chapters 10 and 11, and pp. 420-424.

**\*\*Research Design #1 with Methodology Section Due by Monday, Oct 25\*\***

Wed., Oct 27      Other Data Collection Methods

Skim Chapters 9, 12, and 13, and read Chapter 14.

Wed., Nov. 3      **\*\*Meet in Social Science Research Lab\*\***

Wed., Nov. 10      Applied Research vs. Social Science Research

**\*\* Take-Home Test Due by Monday Nov. 15\*\***

Wed., Nov. 17      Student Projects

**\*\*Final Version of Research Design #1 Due by Monday Nov. 29\*\***

Wed., Nov. 24      **Thanksgiving Vacation**

Wed., Dec. 1                      Student Projects

**\*\*Draft of Research Design #2 Due by Monday Dec. 6\*\***

Wed., Dec. 8                      Student Projects

Wed., Dec. 15                      **\*\* Final Draft of Research Design #2 Due\*\***

### **Writing Assignments**

#### Design #1: Social Science Research Design

As a long-time college instructor, you have noticed that the grades of the students in your Freshman American Government course have consistently declined over the years. And, as a social scientist, you have decided to conduct research investigating the causes of variations in student performance levels. Your thinking is initially informed by an article by Paul Trout, but you do additional reading to investigate this problem. Because of time and financial constraints, you have decided to investigate the problem by surveying students in a Freshman-level course.

After reviewing the available literature, you begin the task of drafting your research design. It is roughly 8-10 pages in length (double-spaced) and is comprised of three sections: 1) Problem Statement; 2) Research Hypotheses; and 3) Research Methodology.

#### Design #2: Applied Research Design for PSC 597

You are a manager, program administrator, or administrative assistant in a government or nonprofit agency who has identified a problem that is undermining or threatening to undermine the performance and success of the agency. You decide to resolve the problem by conducting research and generating appropriate conclusions and/or recommendations. Accordingly, you write a research design of approximately 5 pages in length. You then get it approved by your boss (me), and proceed to carry out the proposed research and write up the report as required to obtain your MPA degree.

### Take-Home Exam Questions

Write on all of the following questions. If you offer tight analysis, you should be able to address each question in 2 pages or less (double spaced). Write full and complete essays (introduction, body, conclusion); put each question in context, define key concepts, explain key points, and provide examples where appropriate. Although this is an open-book test, be sure to respond to the questions in your own words.

**1. The Scientific Method.** Explain what is unique about the scientific method as a way of acquiring knowledge, i.e., how it is unique in terms of assumptions and methodology, and offer your assessment of both its value and its limitations.

**2. Moving from Conceptualization to Measurement.** You have decided to study loneliness among senior citizens using a survey methodology. Explain the steps you will go through in moving from the conceptual level to the empirical level, i.e., the level at which something can be counted.

**3. Sampling and Generalizing.** You have decided to study loneliness among senior citizens using a survey. Define your research population (i.e., give an example of a research population statement), identify the sampling frame you will use and possible problems with it, and explain how you can study some subset of the population (i.e., your sample) and still be able to generalize the results of the study to the research population as a whole.

**4. The Classic Experiment.** You wish to determine whether a training program improves the skills of employees using an experimental design. Explain the logic of experimentation and describe how you might conduct an experiment in this instance. In the process, define internal validity, identify some of the intrinsic and extrinsic factors that may threaten internal validity, and explain how the features of the classic experimental design (e.g., pretesting, control groups) allow you to safeguard it.

## Score Sheet for Evaluating Social Science Designs

A research design describes the steps that will be taken in completing a research project. Its purpose is to guide the researcher in collecting, analyzing, and interpreting data. It should contain the three major components identified below.

Each item below will be scored on a five point scale, with 5 being "excellent" and 1 being "poor."

### I. Problem Statement

- \_\_\_\_\_ 1. The design presents a clear and concise statement of the problem to be addressed by the proposed research.
- \_\_\_\_\_ 2. The design presents a clear statement of the purpose(s) of the proposed research.
- \_\_\_\_\_ 3. The significance of the research problem is clearly established with reference to one or more of the following:
- a. Results will help policy makers address a societal or organizational problem that holds serious consequences.
  - b. Results will help fill a significant research gap, i.e., a gap in our substantive knowledge of the subject.
  - c. Results will help build theoretical knowledge regarding the relationships among important variables.
  - d. Results will clarify problems in ways that will facilitate further research and exploration.

\_\_\_\_\_ 4. The research literature is cited, where appropriate, to demonstrate the relationship of the proposed research to the previous research and/or to place the proposed research in the context of a larger theoretical framework.

### II. Research Hypotheses

- \_\_\_\_\_ 5. Hypotheses to be tested are clearly stated and their rationales clearly explained.
- \_\_\_\_\_ 6. The proposed research is limited in scope to goals that can be achieved realistically.
- \_\_\_\_\_ 7. Independent and dependent variables are identified and the hypothesized relationship between them is described and/or illustrated with a causal model.

\_\_\_\_\_ 8. Variables are conceptually and operationally defined in a way that allows for their accurate measurement.

### III. Research Methodology

\_\_\_\_\_ 9. The research population (and sample population where appropriate) is defined and the method of collecting data is clearly explained.

\_\_\_\_\_ 10. Data collection methods are appropriate to stated objectives.

\_\_\_\_\_ 11. Methods for analyzing the data and presenting results are clearly explained and are appropriate to testing the research hypotheses.

\_\_\_\_\_ 12. Limitations of the methodology and/or potential threats to validity are identified and assessed.

### IV. Other

\_\_\_\_\_ 13. Design is well written and carefully edited.

\_\_\_\_\_ 14. Design utilizes appropriate reference and bibliographic style.