Introduction to Research Design

International Studies 270

Spring 2012

`http://www.carloscostaphd.com`

Professor Costa

Buckman Hall, 113

office hours MWF:11 to noon, or by appointment

Method without substance may be sterile, but substance without method is only fortuitously substantial.

–V.O. Key (1958 APSA Presidential Address)

A great deal of what political scientists purport to know is based on interpretations and being aware of how much of the interpretation impacts our knowledge base is essential. It is only through the rigors of a carefully thought out research design that we can gain confidence in the robustness of our knowledge.

This class is meant to introduce you to the tools that political scientists use to make sense of the information that we are faced as observers, data collectors and data analysts. After ending this class, you should be able to separate fact from opinion and bias and well on your way to structuring research projects that are robust in their findings, what ever methodology you might choose.

Reading

Reading is an **essential** part of this class. You will not be able to keep up with the class if you don't read in advance. Failing to read before class will preclude you from participating in class discussion and therefore hurt your participation grades. Failing to read at all will surely hurt your performance in the final research project.

A key perspective that will ensure your success in this class is to understand that

good research is the product of a series of several simple steps. While they are simple, there are many of them. Considering that we address each one of them individually, students may feel that the material is too simple. Take advantage of their simplicity and become familiar with them. The biggest challenge is not with the complexity of the material, but with stringing them together. Dismissing the concepts given their simplicity is naive and will hurt you in the end.

There is only one required book: **Political Science Research Methods**, by Janet Buttolph Johnson and H.T. Reynolds. For some lectures, you may also have to read an article in place or in addition to the book. These can be downloaded from the class website.

Grading

The ultimate goal of this class is to familiarize students with the challenges and process of producing original research. The best way to accomplish this goal is to attempt to write an original research piece, from beginning to end. As such, grading is structured around the steps that it takes to write a paper. I recognize the challenge of this task and organized the course's grading scheme in a way that ensures that each student is able to perform to the best of his/her ability, the grading is broken down into multiple small tasks, such as quizzes and presentations. The following is a break down of your grading :

1. Feb 9th: class presentation 1 (**10 pts**)

2. Feb 21st: playing with numbers THQ-1 (**6 pts**)

3. March 8th: class presentation 2 (**10 pts**)

4. March 22nd: playing with numbers THQ-1 (**6 pts**)

5. April 3rd: Go live with Survey Monkey (**10pts**)

6. April 24-6th: In class presentation of complete paper(**15 pts**)

7. May 2nd: email me your final paper(**35 pts**)

In addition to your paper, will can earn the remaining 8 points through class participation and discussion. All points add up to 100. Standard grading applies

Class Schedule

- Jan 12 (Th): *going over the syllabus*

  no readings

- Jan 17 (tu): *Introduction to the Research Endeavor*

  Johnson and Reynolds, chapter 1, pages

- Jan 19 (Th): *Scientific knowledge and the importance of theory*

  Johnson and Reynolds, chapter 2, pages 33-48

  Stats: read pages 354-357, (until ... graphs)

- Jan 24 (tu): *Types of reasoning*

  Johnson and Reynolds, chapter 2, pages 48-67

Stats: read pages 357-361, (until descriptive statistics)

- Jan 26 (Th): *Prof out of town*

  no class

- Jan 31 (tu): *Research Question and Lit Review*

  Johnson and Reynolds, chapter 3, pages 74-83

  Stats: read pages 361-364 , (until ... the trimmed mean)

- Feb 2 (Th): *Collecting sources*

  Johnson and Reynolds, chapter 3, pages 83-92

  Stats: read pages 364-367, (until measures of variability of dispersion)

- Feb 7 (tu): *Writing a lit review*

  Johnson and Reynolds, chapter 3, pages 93-101

  Stats: read pages 367-371, (until deviation from central tendency)

- Feb 9 (Th): *Class presentation 1*

  Stats: read pages 371-372, (until end of 372)

- Feb 14 (tu): *Explanations and Hypotheses*

  Johnson and Reynolds, chapter 4, pages 102-116

  Stats: read pages 373-374, (until more on the interpretation of Stand Dev.)

- Feb 16 (Th): *Concepts and Measurements*

  Johnson and Reynolds, chapter 4, pages 116-125

Stats: read pages 374-375, (until the end of 375)

- Feb 21 (tu): *Reliability and Validity of measurements*

  Johnson and Reynolds, chapter 5, pages 130-144

  Stats: read pages 376, (Table 11-10)

  Take home *playing with numbers* quizz I

- Feb 23 (Th): *Measurement Precision*

  Johnson and Reynolds, chapter 5, pages 144-160

  Stats: read pages 396-398, (until two kinds of inference)

- Feb 21 (tu): *Causal Inferences*

  Johnson and Reynolds, chapter 6, pages 165-178

  Stats: read pages 398-401, (until the end of the page)

- Feb 23 (Th): *The Data: experimenting with and observing the data*

  Johnson and Reynolds, chapter 6, pages 178-184,194-201

  Stats: read pages 402-404, (until critical regions and critical values)

- Feb 28 (tu): *Sampling: All you need to know*

  Johnson and Reynolds, chapter 7, pages 222:240

  Stats: read pages 404-406, (until one of two sided tests)

- March 1 (Th): *Empirical Observations: Direct*

  Johnson and Reynolds, chapter 8, pages 257-269

Stats: read pages 407-409, (from comparing observed... small-sample test of mean)

- March 6 (tu): *Empirical Observations: Indirect*

  Johnson and Reynolds, chapter 8, pages 269:275

  Stats: read pages 413-417, (from large sample to testing hypothesis about proportions)

- March 8 (Th): *Class presentations II*

  Stats: read pages 418-420, (from statistical significance to confidence intervals)

- March 13 (tu): *Spring Break*

  no class

- March 15 (Th): *Spring Break*

  no class

- March 20 (tu): *Survey Research: fundamentals*

  Johnson and Reynolds, chapter 10, pages 306-325

  Stats: read pages 420-424, (until using confidence intervals...)

- March 22 (Th): *Survey Research: challenges*

  Johnson and Reynolds, chapter 10, pages 325-340

  Stats: read pages 424-425, (read up to and including terms introduced)

  Take home *playing with numbers* quizz II

- March 27 (tu): *Survey Research: Archives and Interviews*

  Johnson and Reynolds, chapter 10, pages 340-348

  Stats: read pages 428-431, (until types of relationships)

- March 29 (Th): *Survey Monkey: brainstorming day*

  Stats: read pages 431-433, (until the end of the page)

- April 3 (tu): *Document Analysis*

  Johnson and Reynolds, chapter 9, pages 278-292

  Stats: read pages 434-435, (until end of 435)

  Upload your survey on Survey Monkey

- April 5 (Th): *Content Analysis*

  Johnson and Reynolds, chapter 9, pages 292-303

  Stats: read pages 436-440, (until measuring strength of relationships in tables)

- April 10 (tu): *Bivariate Relationships I*

  Stats: read pages 440-445, (until coefficients for ordinal variables)

- April 12 (Th): *MidWestern Political Science Association Meeting*

  no class

- April 17 (tu): *Bivariate Relationships II*

  Stats: read pages 456-463, (from testing a cross tabulation until difference of means test)

- April 19 (Th): *Wrap up*

  Review session, presentation prep, Q&A

  no readings

- April 24 (tu): *Paper Presentations*

- April 26 (Th): *Paper Presentations*

  email me your papers by May 2nd