

**The Potential of Embedding Research Methods into  
Substantive Political Science Courses**

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## **The Potential of Embedding Research Methods into Substantive Political Science Courses**

*Abstract:*

Teaching research methods is an important part of most undergraduate political science curricula, though many programs do not have the capacity to require or offer the class for all of their majors. We examine whether it is possible to embed this knowledge into substantive courses to improve student understanding and knowledge of research methods issues. Using a quasi-experimental design in which test group students were exposed to low levels of research methods materials, we do not find that there is a statistically significant relationship between the means of correct answers between the pre- and post test, but we do find statistically significant change between the groups for certain items. We also discuss two unintended consequences of the experiment: depressed levels of efficacy about research methods materials and lower course ratings about readings by test group students.

# **The Potential of Embedding Research Methods into Substantive Political Science Courses**

**Or**

## ***Mea Culpa, Why We Should All Test Innovations Before We Begin Proselytizing***

As teachers of political science, we want our students to understand the methods we use to arrive at our findings. Such knowledge is purported to improve student performance on papers and in classes, and students can use this transferable knowledge use in their professional lives or, in some cases, later in graduate school. Where (and whether) methods courses belong in the curriculum is debated. Some professors ignore the topics completely in substantive courses, while others deliberately incorporate it into these classes. If the APSA Teaching & Learning conference participants represent the field, the general consensus is that students enter college unprepared and need help building critical research skills for success in college and after. In addition, many political science instructors feel that these classes, when taught at all, are taught too late in the curriculum (Botteron and Harkness 2005; Brandon et al 2006).

Over the years, we (the authors of this paper) have incorporated methods discussion into our substantive classes through academic journal article assignments, hoping, even believing, this “teaching innovation” helped students learn about research methods and develop information literacy. However, our evidence of the success of the inclusion of these materials was anecdotal only, as is much evidence presented at conferences about similar teaching innovations. We decided to empirically test this particular innovation and in this paper explore whether it is possible to embed research methods knowledge into a substantive political science course. Our purpose was to help determine whether such an approach may be useful for programs attempting to increase exposure to research methods without increasing course offerings or demands on majors.

Using a quasi-experimental design in which test group students were exposed to low levels of research methods materials, we do not find that there is a statistically significant relationship between the means of correct answers between the pre- and post tests, but we do find statistically significant change between the groups for certain items. We also encountered two negative and unintended consequence of the experiment: lower levels of efficacy about research methods materials and lower course ratings about readings by test group students.

### **Expectations**

Beyond our personal experiences in the classroom, there is evidence from the political science and related field literatures that suggest that innovations like the one we test ought to be effective. The introduction of such innovations into the classroom

may also have effects beyond the potential increase in levels of student knowledge, impacting student efficacy and course approval.

#### *Student Knowledge*

At the most basic level, the introduction of these materials ought to increase student performance on the post-assessment for the test group members. The combination of exposure and teacher explanation will improve scores for these students, particularly on the assessment items that are regularly included in the class materials (especially basic skills like how to read abstracts, tables and graphs).

Beyond the difference between the test and control groups, we also expect to see improvement among a certain sub-class of students: those who have previously performed well in school generally. In one study of freshman performance comparing athletes to non-athletes, the authors found that gains depend on “pre-college” ability (Pascarella et al 1995). We extend this beyond the freshmen and expect to see enhanced performance by students demonstrating higher ability at any level prior to entering this class. This should be true for students in both the test and control groups, as portions of the material we test students may pick up from other courses or assistantships.

#### *Self Efficacy*

In Maier and Curtin’s (2005) study testing whether optional exposure to math materials decreased math anxiety, the authors found that not only this technique help the students in course performance, but it also increased levels of self-efficacy. Other research has found similar effects. In one, exposure to research literature built students’ sense of self as emerging scholars (Botteron and Harkness 2005). In yet another study, exposure to research methods materials increased comfort with the material after the class was over (Andersen and Harsell 2005). We also expect to find that test group students will feel more comfortable with these materials than control group students.

#### *Student Experiences*

The effect of this innovation on teaching evaluations is harder to predict. On the one hand, some studies show that teaching innovations produce higher course evaluations (Spronken-Smith 2005). On the other, most accounts of teaching research methods are rife with student complaints about the material being too difficult, boring, and so on (Hubbell 1994), which may lower student evaluations. Further, the introduction of such innovations lessens class time that could be used for lecture and discussion (Asal 2005), which may make test group students less engaged. Our expectation going into this experiment was that the students in the test group would struggle more with the materials. Consequently, we expected them to rate course readings lower than the control group on evaluations, and rate the course as a whole lower than the students in the control group.

## **Methods**

To test whether it is possible to embed research methods knowledge into a substantive political science course to improve student understanding, this study utilizes a quasi-experimental design with a treatment and control group (n=155). This design is similar to other empirical tests of the efficacy of teaching innovations (see for

example Andersen and Harsell 2005; Jordan and Sanchez 1994; and the examples in Cross and Steadman 1996).

### *Design*

The treatment group was given low-level, un-graded exposure to research methods topics through research-based readings from political science journals and support during lectures on how to understand and interpret these readings. The treatment group was an Introduction to American Politics class with 72 students that met on Mondays, Wednesdays and Fridays for 50 minutes each day during the Fall 2006 semester at Auburn University. The control group was an Introduction to American Politics class that met on Tuesdays and Thursdays for 75 minutes each day during the same semester. Both classes were taught by the same professor but with different teaching assistants.

Both classes used the same primary text book and had equivalent amounts of supplemental readings but from different sources. The treatment group read one article for a political science journal per week selected to match that week's topic. The control group was given web-based readings once a week selected to match that week's topic.

We used a quasi-experimental design because we were unable to control which course students signed up for. Despite this, the demographics of the students in the two courses were largely the same (see Table 1). Almost 60% of the students are from Alabama, and most were freshmen. Slightly over half of the students are liberal arts majors, and almost 20% of the students had previously taken a statistics course. The few differences between the classes were minor. The control group had 11% more females than the test group, and the control group students also had slightly higher GPAs on average than the test group members.

### *Data*

Data were collected on both the treatment and control groups using a 25-question pre- and post- research methods assessment. The questions were developed to capture key information taught in undergraduate research methods classes, based in part of the consensus on what should be taught in these classes from discussions at the 2006 Teaching Research Methods track at the APSA Teaching and Learning conference (Brandon et al 2006), and specifically on information from Mannheim et al's (2006) *Empirical Political Analysis* textbook.<sup>1</sup> In addition, the assessment was reviewed by an ad hoc advisory group and revisions were made based on their recommendations.<sup>2</sup> The questions cover topics ranging from simple definitions (for example, "Empirical analysis concerns...") to reading graphs and tables to understanding causality (for the full assessment, see Appendix A).

In addition to the substantive questions, data were also collected on demographics, class attendance, class performance, and attitudes about the class. We

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<sup>1</sup> Mannheim, Jarol B.; Richard C. Rich; Lars Willnat; and Craig Leonard Brians. 2005. *Empirical Political Analysis: Research Methods in Political Science*, 6<sup>th</sup> Edition. New York: Longman.

<sup>2</sup> We wish to thank Victor Asal (SUNY Albany), Cindy Bowling (Auburn University), Gerry Gryski (Auburn University) and Paul Johnson (Auburn University) for their assistance reviewing the assessment.

gathered demographic information from the pre-test on: year in school; age; gender; race/ethnicity (using Census 2000 categories); state where the student graduated from high school; Auburn GPA (or from the previous school for high school and transfer students); college within the university and major; previous research methods and statistics courses taken; having worked as a research assistant; having worked on a research project; and plans for after graduation.

We embedded four levels of evaluation into the classes to monitor whether the experiment was having any unintended consequences on students. First, one month into the class we gave the students an anonymous, open-ended questionnaire about the class. Second, at the mid-semester point we had an outside evaluator from the University's teaching and learning program come in and facilitate a "small group instructional feedback" process. Third, we have included the results from the standard departmental end of the course anonymous evaluation. Finally, we gathered information on attitudes about the class and comfort with the material covered from a set of questions on the post-test (see Appendix A). Materials made available through the Carnegie Mellon Enhancing Teaching web-site were used to develop portions of the wording and the scaling of these questions.<sup>3</sup>

#### *Analysis*

To analyze the data, we created a variable measuring change in overall number of questions students answered correctly on the pre- and post- test, a variable that measures changes in specific items, and a variable that measures overall change. In the analysis, we conducted difference of mean and proportion tests, cross-tabulations and correlations, and OLS regression.

### **Findings**

The primary hypothesis we explore in this project is whether members of the test group improved their knowledge of research methods topics between the pre- and the post-assessments as compared to the control group members. We do this in two ways: first, we examine overall improvement on the assessment as a whole, and second, we examine improvement in certain areas through an item analysis.

Table 2 summarizes overall student performance on the pre- and post-assessments as well as change. The range of correct responses (out of a possible 25) was 4-18 for the pre-assessment and 3-19 for the post-assessment. The mean scores were 11.17 and 11.65 respectively. Using a difference of means test, there was not a statistically significant difference between performance on the pre-assessment and the post-assessment for the groups pooled or separated, nor was there a statistically significant difference in means between the test and control groups on overall performance on the pre-assessment, post-assessment, or overall change. Measured in this way, the innovation was a failure.

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<sup>3</sup> Carnegie Mellon. Enhancing Teaching Website.  
[http://cmu.edu/teaching/assessment/design\\_selfevaluation.html](http://cmu.edu/teaching/assessment/design_selfevaluation.html)

Our next step was to look at changes on specific items, in particular those items that test group spent more time covering in their course. Table 3 presents an item analysis and gives the proportion of students who responded correctly to each question overall as well as broken down for the test versus control groups. There are 8 items that students in both classes improved their scores on between the pre- and post- test; of these the difference in means is statistically significant for 5 questions. These include questions about operationalization, causal relationships, null hypothesis, interpreting statistics, and census data. There are 10 items that scores went down on between the pre- and post- assessments. Finally, there are 6 items that the change in the test group was higher for than the change for the control group: these questions tested skills in reading abstracts, reading tables, understanding types of central tendency (2 questions), critiquing methods, and the appropriate use of focus groups. All of topics were covered in the test-group class from the readings.

The next question we were interested in answering was whether there are demographic predictors of performance. We pooled the data for this analysis given the inconclusive nature of our findings about the efficacy of the experiment and the similarities between the groups. Table 4 summarizes these findings. The demographic predictors of success and failure are consistent across the pre- and post- assessment. The three largest predictors of success were: 1) previous GPA for freshmen and transfer students; 2) having taken a statistics course prior to entering this class; and 3) students who are engineering majors. The only consistent predictor of lower pre- and post-assessment scores was being a student in the School of Liberal Arts; however, being a political science major was not statistically significant, suggesting that the political science majors slightly outperformed their peers within the school.

### **Unintended Consequences**

Beyond the intended effects of the experiment, we also wanted to determine if there were any unintended consequences, positive or negative. Going into the experiment we thought that two might arise for the test group members: an increase in student efficacy regarding research methods materials and potentially lower course evaluations, a result of being “turned off” of the material covered.

#### *Efficacy*

To gauge in increase in student efficacy with research methods materials, we included two questions on the post-assessment (see Table 5D). The first asked students on a scale from 1 to 5 where 1 is the lowest option and 5 is the highest whether “this course helped me better understand how to read writing by political scientists.” The second asked students whether “this course helped me better understand the research methods used by political scientists.” There was not a statistically significant difference in response between the two groups for the second question. However, for the first question there was a negative statistically significant difference between the groups ( $p < .05$ ). The control group students who were not exposed to any technical writing by political scientists felt that they were better prepared to read this material after taking the class: a perfect example of ‘ignorance is bliss’!

### *Course Approval*

Our second unintended consequence we were interested in gauging was whether the student exposure to the more complex material in the test group depressed their evaluations of the course. To test this we embedded four different evaluations throughout the semester (the results of each are summarized in Table 5, A-D).

The first evaluation (see Table 5A), an anonymous 5-part questionnaire, was given one month into the course. The student feedback across the two classes is largely the same, with the exception of some students in the test class complaining of being 'distanced' from the class because of the article assignments; there were not similar complaints from the control group about the web-site readings.

The second evaluation (see Table 5B) was conducted at the mid-semester point and was small group discussions about the class facilitated by a member of the University's teaching and learning center. Though the facilitator noted some minor differences between the classes, none pertained to the readings, and they were largely similar.

The third evaluation was an anonymous 8-item survey administered at the end of the semester by the department (see Table 5C). The results were again very similar across the two groups with one exception. Question 5 asked students to rate whether the "instructor stimulated my thinking," with the rating on a 5-point scale where 1 is the lowest and 5 is the highest. This question produced the largest (though still relatively small) difference between the classes, with the test group students giving higher ratings on average for this question. This suggests that despite the difficulty of the material, the class challenged the students in a positive way more so than the control class.

Finally, the fourth evaluation was embedded at the end of the post-assessment and asked students to rate the appropriateness of the level of difficulty of class readings and lectures and whether the class content and activities helped students better understand American politics and methods. Again the results from the classes were largely similar with a few exceptions. One question pertains to efficacy (see discussion above), and the others pertain to the supplemental readings. The first supplemental reading question asked if the level of the readings was "at an appropriate level of difficulty." The test group students rated this almost one point lower on average than the control group statistics (statistically significant at  $p < .000$ ). The second question asked whether the readings "were helpful in developing my understanding of course content." The test group students also rated this question on average lower than the control group students (statistically significant at  $p < .10$ ).

In sum, student evaluations between the two classes were largely similar and positive with a few exceptions. All but one of these exceptions was more negative ratings by the test group students and pertained to the class readings. However, these same students rated class stimulation higher than the control group students.

### **Conclusion**

Our purpose in conducting this teaching experiment was to determine whether it is possible to embed research methods content at low levels of exposure into substantive political science courses to increase student knowledge of this material. Though we do not find a statistically significant relationship between the overall assessment scores between the start and end of the semester by group, we do find change between the groups for certain items that we covered regularly in the test class. We also encountered two negative unintended consequences of the experiment: lower levels of efficacy about research methods materials and lower course ratings about readings by test group students.

Despite the less than overwhelming outcome of this study, our findings are nonetheless important. First, the results show some change, and given the low level of exposure the test group students received, this suggests that more emphasis on embedding methods into a substantive course may produce greater effects. At the least, this is worth testing. It is also encouraging to note that the course evaluations were not greatly affected by the inclusion of what was obviously distasteful material to the students. This has important implications for departments that are unable to regularly offer research methods courses to their students.

Our experience with the experiment also suggests that exposing students to these materials at the start of their academic career may not be ideal timing. Despite consensus from Teaching Research Methods tracks at the APSA Teaching & Learning conferences that methods ought to be included earlier than the junior or senior year, students in this course rated the appropriateness of the difficulty of the class lower if they were just entering college and their performance on the pre- and post- assessments was also lower.

Finally, there has been an enormous amount of material written about pedagogy over the years, little of which has been rigorously tested and shown systematically to work. At the same time, we also know that we tend to overestimate ourselves and our abilities, and when we self-rate no one is below average (Kruger and Dunning 1999). At the least, our work shows that we have been guilty of overrating the effectiveness of this particular innovation specifically, and more generally that as a field we must question and test our assertions about teaching innovations. Otherwise we are subject to our own false impressions.

**Table 1: Student Description**

|                           | <b>Overall<br/>(n=155)</b>         | <b>Test Group<br/>(n=79)</b>       | <b>Control Group<br/>(n=76)</b>    |
|---------------------------|------------------------------------|------------------------------------|------------------------------------|
| <b>Demographics</b>       |                                    |                                    |                                    |
| Alabama res.              | 59%                                | 58%                                | 59%                                |
| Year born                 | 1987 <sub>med</sub><br>(1965-1988) | 1987 <sub>med</sub><br>(1974-1988) | 1987 <sub>med</sub><br>(1965-1988) |
| Class                     | Freshman <sub>mode</sub>           | Freshman <sub>mode</sub>           | Freshman <sub>mode</sub>           |
| Race/Ethnicity            |                                    |                                    |                                    |
| White                     | 87%                                | 86%                                | 88%                                |
| Black                     | 11%                                | 10%                                | 12%                                |
| Other                     | 2%                                 | 4%                                 | 0%                                 |
| Hispanic                  | 3%                                 | 4%                                 | 1%                                 |
| Females                   | 64%                                | 58%                                | 69%                                |
| <b>Majors</b>             |                                    |                                    |                                    |
| College Lib Arts          | 53%                                | 51%                                | 55%                                |
| College Engineering       | 12%                                | 13%                                | 11%                                |
| Political Science         | 15%                                | 14%                                | 17%                                |
| Undecided                 | 9%                                 | 12%                                | 7%                                 |
| <b>School Performance</b> |                                    |                                    |                                    |
| Auburn GPA                | 2.930                              | 2.855                              | 3.025                              |
| Other GPA                 | 3.549                              | 3.51                               | 3.584                              |
| Class Attendance          | 87%                                | 88%                                | 85%                                |
| <b>Previous Exposure</b>  |                                    |                                    |                                    |
| Research Methods          | 22%                                | 25%                                | 19%                                |
| Statistics                | 19%                                | 19%                                | 18%                                |
| Research Assistant        | 3%                                 | 3%                                 | 3%                                 |
| Research Project          | 5%                                 | 7%                                 | 4%                                 |

**Table 2: Summary of Test Scores**

A. Overall

|                           | <b>Pre-Test</b> | <b>Post Test</b> |
|---------------------------|-----------------|------------------|
| <b>Range</b>              | 4-18            | 3-19             |
| <b>Mean</b>               | 11.17           | 11.644           |
| <b>Standard Deviation</b> | 2.66            | 3.008            |
| <b>n</b>                  | 135             | 104              |

B. Test Group

|                           | <b>Pre-Test</b> | <b>Post Test</b> |
|---------------------------|-----------------|------------------|
| <b>Range</b>              | 5-18            | 7-19             |
| <b>Mean</b>               | 11.18           | 11.71            |
| <b>Standard Deviation</b> | 2.92            | 2.78             |
| <b>n</b>                  | 67              | 49               |

C. Control Group

|                           | <b>Pre-Test</b> | <b>Post Test</b> |
|---------------------------|-----------------|------------------|
| <b>Range</b>              | 4-17            | 3-19             |
| <b>Mean</b>               | 11.16           | 11.58            |
| <b>Standard Deviation</b> | 2.54            | 3.22             |
| <b>n</b>                  | 68              | 55               |

**Table 3: Item Analysis (Proportion of Correct Responses)**

| Question Substance                  | Overall  |           | Test Group |           | Control Group |           |
|-------------------------------------|----------|-----------|------------|-----------|---------------|-----------|
|                                     | Pre-Test | Post-Test | Pre-Test   | Post-Test | Pre-Test      | Post-Test |
| 1. Definition- empiricism           | .311     | .316      | .311       | .269      | .311          | .355      |
| 2. Definition- scientific research  | .417     | .421      | .403       | .346      | .432          | .484      |
| 3. Definition- operationalization   | .147     | .246      | .132       | .212      | .162          | .274      |
| 4. Skills- reading graphs           | .84      | .868      | .829       | .846      | .851          | .887      |
| 5. Definition- spuriousness         | .243     | .204      | .324       | .231      | .162          | .18       |
| 6. Skills- causal relationship      | .242     | .398      | .24        | .423      | .243          | .377      |
| 7. Skills- null hypothesis          | .345     | .469      | .293       | .365      | .397          | .557      |
| 8. Skills- reading abstracts        | .569     | .569      | .548       | .6        | .591          | .542      |
| 9. Skills- reading tables           | .52      | .491      | .494       | .538      | .548          | .452      |
| 10. Definition- reliability         | .556     | .531      | .584       | .529      | .527          | .532      |
| 11. Skills- interpreting statistics | .253     | .416      | .284       | .431      | .222          | .403      |
| 12. Application- experiments        | .205     | .124      | .195       | .176      | .216          | .081      |
| 13. Application- data sources       | .493     | .593      | .481       | .623      | .507          | .565      |
| 14. Application- sampling error     | .7       | .743      | .697       | .745      | .703          | .742      |
| 15. Application- bias               | .715     | .655      | .727       | .686      | .703          | .629      |
| 16. Definition- secondary data      | .55      | .518      | .597       | .519      | .5            | .516      |
| 17. Definition- comparative res     | .755     | .719      | .792       | .712      | .716          | .726      |
| 18. Definition- central tendency    | .563     | .558      | .532       | .596      | .595          | .525      |
| 19. Application- median             | .099     | .168      | .104       | .154      | .095          | .18       |
| 20. Definition- regression          | .456     | .474      | .487       | .442      | .425          | .5        |
| 21. Application- anecdotes          | .153     | .186      | .123       | .154      | .183          | .213      |
| 22. Methods critique                | .441     | .464      | .397       | .51       | .486          | .426      |
| 23. Skills- reading tables          | .791     | .705      | .824       | .784      | .757          | .639      |
| 24. Application- focus groups       | .534     | .554      | .514       | .588      | .554          | .525      |
| 25. Definition- social science      | .279     | .205      | .288       | .213      | .270          | .197      |

**Table 4: Relationship between Performance on Assessments and Indicators**

|                          | <b>Significant</b>   | <b>Not Significant</b>  |
|--------------------------|--|---|
| <b>Pre-Test Success</b>  | Age +<br>Race/Ethnicity<br>High School/Transfer GPA +<br>Liberal Arts Majors –<br>Engineering Majors +<br>Previous Statistics Class +  | Year in school<br>Gender<br>In-state v. Out-of-state<br>Auburn GPA<br>Political Science Majors<br>Undecided Majors  |
| <b>Post-Test Success</b> | High School/Transfer GPA +<br>Race/Ethnicity<br>High School/Transfer GPA+<br>Liberal Arts Majors –<br>Engineering Majors +<br>Undecided Majors +<br>Previous Statistics Class +<br>Feelings: supplemental course readings –<br>Class Performance + | Year in school<br>Age<br>Gender<br>In-state v. Out-of-state<br>Auburn GPA<br>Political Science majors<br>Attendance<br>All other class ratings (Feelings) |

**Table 5: Course Evaluations**

A. Anonymous Questionnaire—4 Weeks into Semester

|  | <b>Test Group Summary</b>   | <b>Control Group Summary</b>  |
|--|---|---|
| Question 1: At what moment in the class this week did you feel most engaged with what was happening?   | <ul style="list-style-type: none"> <li>• Small Group Exercise (57.8%)</li> <li>• Class Discussion and Debate (34.3%)</li> <li>• Me (8.7%)</li> </ul> Asking you all questions and telling stories <ul style="list-style-type: none"> <li>• Other (5.2%)</li> <li>• Lecture, LBJ tapes</li> <li>• Never (1.7%)</li> </ul>            | <ul style="list-style-type: none"> <li>• Constitution Exercise (90.3%)</li> </ul> Presentations<br>Discussing and voting on proposals<br>Working in small groups <ul style="list-style-type: none"> <li>• Lectures (9.7%)</li> </ul> Expansion of national role in federalist relationship; contemporary examples; expressed powers; cake drawings; Lyndon Johnson  |
| Question 2: At what moment in the class this week did you feel most distanced from what was happening? | <ul style="list-style-type: none"> <li>• Lecture (35.1%)</li> <li>• Never (24.5%)</li> <li>• Other (23.8%)</li> <li>• Thinking about other classes, missing class, LBJ tapes</li> <li>• Article (reading and discussion) (12.2%)</li> <li>• Small group work (3.4%)</li> <li>• Always (1.7%)</li> </ul>                             | <ul style="list-style-type: none"> <li>• Lecture (47.7%)</li> <li>• Keeping up with notes; more discussion; topics (enumerated powers, court cases, court cases); start of class no direction</li> <li>• Group Project (25.6%)</li> <li>• Presentations unprepared; ideas unclear; assignment too difficult; people arguing over proposals; group too large; small group work (getting agreement on topics)</li> <li>• None (23.8%)</li> <li>• Other (2.9%)</li> </ul>                  |
| Question 3: What action that anyone took in class this week did you find most affirming or helpful?    | <ul style="list-style-type: none"> <li>• Lecture (17.5%)</li> <li>• Question &amp; Answer (12.1%)</li> <li>• Exam Review (12.1%)</li> <li>• Small Group Work (12.1%)</li> <li>• Me (12.1%)</li> <li>• Examples, answering e-mails, help with group work, prognosticating about politics, etc.)</li> <li>• Article (1.7%)</li> </ul> | <ul style="list-style-type: none"> <li>• Lecture (42.2%)</li> <li>• Recapping; explaining court cases; key words on board; examples; using tables and graphs; taking notes</li> <li>• Project (35.7%)</li> <li>• Interactive activities; voting on ideas; presentations; working in small groups; questions and feedback</li> <li>• Class Participation &amp; Discussion (17.8%)</li> <li>• Student clarification questions; active class discussion</li> <li>• Other (4.3%)</li> </ul> |
| Question 4: What action that anyone took in class this week did you find most puzzling or confusing?   | <ul style="list-style-type: none"> <li>• Nothing (52.5%)</li> <li>• Discussion (24.5%)</li> <li>• Student comments and actions, random outbursts, inappropriate comments</li> <li>• Lecture (15.7%)</li> </ul>  | <ul style="list-style-type: none"> <li>• Group Projects (42.8%)</li> </ul> Some of the propositions; some presentations not well organized or unclear; assignment difficult; my response to one proposal <ul style="list-style-type: none"> <li>• Nothing (27.8%)</li> </ul>  |

|  | <b>Test Group Summary</b>   | <b>Control Group Summary</b>  |
|--|---|---|
|  | <ul style="list-style-type: none"> <li>• Other (3.4%)</li> <li>• LBJ tapes, group work</li> </ul>   | <ul style="list-style-type: none"> <li>• Lecture (22.9%)</li> </ul> <p>Quick pace of lecture; not writing on board; terms; wandering off topic; transitions between topics</p> <ul style="list-style-type: none"> <li>• Other (6.5%)</li> </ul>   |
| Question 5: What about the class this week surprised you the most? | <ul style="list-style-type: none"> <li>• Student opinions &amp; discussion (42.1%)</li> <li>• Arson, legalization of drugs, who participates, etc.</li> <li>• Nothing (21.0%)</li> <li>• Information (15.7%)</li> <li>• What affects participation, Moonies, suffrage, etc.</li> <li>• Other (14.0%)</li> <li>• LBJ tapes, group work, etc.</li> <li>• Class can be good (10.2%)</li> </ul> | <ul style="list-style-type: none"> <li>• Project (75.1%)</li> </ul> <p>Different ideas about constitutional changes; enjoying the project; ideas that didn't come up; level of knowledge about politics; range of political/ ideological beliefs in class; disrespect about other people's opinions</p> <ul style="list-style-type: none"> <li>• Other (15.6%)</li> </ul> <p>Pop quiz; course complex for a non-honors class; stories about President Johnson; increased interest in learning more about the constitution and federalism</p> <ul style="list-style-type: none"> <li>• Lecture (9.3%)</li> </ul> |

B. Small Group Instructional Feedback – Mid-Semester

| Question  | Test Group Summary  | Control Group Summary   |
|---|---|---|
| What aspects of this course contributes to your success?            | <p><u>Instruction</u>: handouts on topics; writing notes on board, diagrams; detailed study guides for exams; WebCT info; interesting, detailed, relevant-to-personal life lectures; study skills tips; small group discussions; user-friendly text; attendance policy</p> <p><u>Instructor</u>: accessible; accommodating; cares about students; unbiased regarding course content</p>   | <p><u>Instruction</u>: handouts on topics; writing notes on board; study guides; WebCT outlines; text readings are manageable; in-class projects</p> <p><u>Instructor</u>: asks for feedback on understanding</p>   |
| Suggestions for changes that would further facilitate your success? | <p><u>Instruction</u>: increase writing notes on board, perhaps powerpoint; slow down lecture; allow discussion of essay items prior to exam; provide guide, expectations for discussion of non-text readings; increase opportunities for grades, "extra credit," bonus points for reading non-text material</p>  | <p><u>Instruction</u>: Arrange for discussion of non-text readings, application to other material; incorporate audio-visual materials in class</p> <p><u>Grading</u>: adjust grading so first test has more weight; consider grading group work; match students' expectations for text reading with pop quizzes</p>   |
| Consultant Observation & Summary                                    | <p><u>Process</u>: There seems to be two types of students in this section: mindful and appreciative of the instructor's efforts at organizing and presenting a solid course; and wanting the work to be much easier and catered to their preferences. Students participated willingly and thoroughly. They were not hesitant to disagree with each other on point of feedback to relate to instructor.</p> <p><u>Helpful Aspects</u>: many aspects of instruction have been helpful: lectures with notes, study guides, study skills.</p> <p><u>Suggestions for Changes</u>: Provide guidance for preparing for discussions on readings, topics (handout provided); show how readings, text, lectures, discussions fit together.</p> | <p><u>Process</u>: There seems to be two types of students in section: those that believe the course is arranged to allow them to be successful, and those who believe grading policies are primary contributors to their learning.</p> <p><u>Helpful Aspects</u>: several aspects of instruction have been helpful: study guides, review sessions.</p> <p><u>Suggestions for Changes</u>: arrange for more discussion of non-text readings; show how non-text readings fit with other materials.</p> |

Note: Facilitated by Dr. Karen St. Clair, Biggio Center for the Enhancement of Teaching and Learning

C. Departmental Evaluations—End of the Semester

| <b>Question</b>                               | <b>Test Group<br/>Average (n=58)</b> | <b>Control Group<br/>Average (n=63)</b> |
|---|--------------------------------------|---|
| Instructor explained course material clearly. | 4.4                                  | 4.3                                     |
| Instructor was actively helpful.              | 4.4                                  | 4.2                                     |
| Instructor was well prepared.                 | 4.6                                  | 4.6                                     |
| Instructor spoke audibly and clearly.         | 4.5                                  | 4.4                                     |
| Instructor stimulated my thinking.            | 4.4                                  | 4.1                                     |
| Course objectives were clear.                 | 4.5                                  | 4.4                                     |
| Instructor motivated me.                      | 4.2                                  | 4.1                                     |
| Class was well organized.                     | 4.4                                  | 4.3                                     |

Note: Questions were asked using a 5 point scale where 1 was the lowest rating and 5 was the highest rating.

D. Post-Test Evaluations—End of the Semester

| <b>Question</b>  | <b>Test Group Average (n=52)</b> | <b>Control Group Average (n=62)</b> |
|--|----------------------------------|-------------------------------------|
| 1. The level of the text used in this course was at an appropriate level of difficulty.                  | 4.1                              | 4.2                                 |
| 2. The level of the supplemental readings used in this course was at an appropriate level of difficulty. | 3.3                              | 4.1                                 |
| 3. The content of lectures given in this course was at an appropriate level of difficulty.               | 4.5                              | 4.5                                 |
| 4. This course helped me gain a solid base in my understanding of American politics.                     | 4.5                              | 4.6                                 |
| 5. This course helped me better understand how to read writing by political scientists.                  | 3.3                              | 3.7                                 |
| 6. This course helped me better understand the research methods used by political scientists.            | 3.5                              | 3.3                                 |
| 7. The course readings were helpful in developing my understanding of course content.                    | 3.9                              | 4.2                                 |
| 8. The lectures were helpful in developing my understanding of course content.                           | 4.7                              | 4.5                                 |
| 9. Group activities were helpful in developing my understanding of course content.                       | 3.7                              | 3.9                                 |
| 10. Class discussion was helpful in developing my understanding of course content.                       | 4.4                              | 4.5                                 |

Note: Questions were asked using a 5 point scale where 1 was the lowest rating and 5 was the highest rating.

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