

J395 Designing Experiments Fall 2015 – unique #08155

Seminar: Fridays 9 a.m. to 12 p.m. in CMA 3.108
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Office Hours: Wednesdays 10 a.m. to 12 p.m., Fridays 1-2 p.m. and by Appointment. Make appointments using my Doodle calendar, <http://doodle.com/5u5t2u7ue67fqi3q>
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Required:

Shadish, W.R., Cook, T. D., & Campbell, D.T. (2002). *Experimental and Quasi-Experimental Designs for Generalized Causal Inference* Belmont, CA: Wadsworth.

Bausell, R. B. (1994). *Conducting Meaningful Experiments: 40 Steps to Becoming a Scientist*. Los Angeles: Sage.

Readings posted on Canvas, handed out during class, or available online.

Course Overview

If you are interested in causality rather than just correlation, and testing hypotheses for cause and effect, then this class is for you.

This class is different from most other experimental design courses in that it focuses on methodological and design issues in planning an experiment rather than on analyzing the data with various statistics. The class *will* briefly cover that aspect, but the focus is mainly on enabling you to have a fully designed experiment, which you can then carry out as a research paper, thesis, or dissertation proposal. Rather than just reading about controlled experiments and field experiments, single factor experiments and factorial designs, manipulation checks, etc., we will walk through the steps in deciding which of these elements is best used in the creation of your own experiment, including making the stimuli and questionnaire. By the end of the semester you will have submitted an application to the IRB and be ready to run subjects for your experiment. The inner workings of the statistics, formulas, and calculating them by hand will not be part of this class; you should take a traditional experimental design class if you want to learn that.

This class is not the same as the experimental design classes from the psychology department; it is a complement to those, however. If you are looking to become a qualified experimentalist, take this course and one in psychology too.

Experiments are considered advanced research methods, so a basic research methods class and a theory class are pre-requisites. That said, this course won't

include arcane language or assume you know anything about experiments or statistics used to analyze them; you should have a basic knowledge of the scientific method, and have conducted at least one study of any kind (content analysis, survey, etc.). Knowledge of theory is necessary because experiments are used to test hypotheses posed through some theoretical framework, not just hunches.

This class meets once a week for 3 hours. The first half of the class will cover the readings and theory of experimental issues; the second half of the class will be more like a “lab” where we work on designing your own experiment.

Objectives:

- 1) To develop an understanding of experimental methods and major experimental designs, and think critically about their proper application in journalism and communication research.
- 2) To write hypotheses that can be tested using experiments.
- 3) To be able to develop different types of experimental and quasi-experimental designs.
- 4) To apply knowledge of ethical standards to an experiment and be able to submit an application to the IRB.

Course Requirements & Expectations

Your grade will be based on attendance and participation, papers analyzing the readings, weekly assignments, and a final individual paper that represents a fully designed and ready-to-be-conducted experiment. Assignments must be turned in at the beginning of class on the date they are due. Late assignments will not be accepted and will be given a grade of zero. Some assignments are due on paper, and others by email. See each individual assignment for instructions.

University Policy on Holy Days: A student who misses classes for the observance of a religious holy day should inform the instructor as far in advance of the absence as possible so that arrangements can be made to complete an assignment within a reasonable time after the absence.

Assignments:

Class Attendance and Participation

You will be expected to come to class regularly and contribute to the learning of others in some significant way. Discussion is the most obvious way to contribute, provided your comments are thoughtful and informed. You will write papers on the readings (below) to assist you with this. If you are one of the painfully shy, please find other ways to contribute; bringing in examples and material related to the topic of the day, for example. Be creative and find a way. The value of this class is achieved primarily through in-person participation; you will not be able to achieve the course goals as a distance learner. This can only be accomplished with your physical presence; if you are unfortunate enough to be sick a substantial portion of the semester, you will need to take this class at another time. The university allows

excused absences for medical illnesses with written excuses, religious holy days, official extracurricular activities, and military service; however, if you miss more than 3 class days, even with approved excuses, you will need to drop the class and take it another time. Respect for others' feelings, beliefs and values are essential to the success of the class, so please be considerate of your classmates' different backgrounds and experiences as you discuss various points of view.

Papers on the Readings

One-page "reflection" or "thought" papers that analyze and synthesize some idea related to the methodology in one or more of the readings. This is a class in experimental methodology, so write on something about the aspect of the **method** that we are studying that week (manipulation checks, sampling, etc.) in these papers, not the findings, the literature, etc. You don't need to critique them the way you would if you were reviewing them for a conference like AEJMC. Bring these reflection papers to class with you; do not email to me or send with a classmate. These are tied to your attendance; they are not accepted if you do not attend. There are 11 days of assigned readings; you can choose which 8 you want to do the papers on, so missing a class or two should not pose a problem. If you do them all, the three lowest grades will be dropped. One purpose of these papers is to give you the opportunity to think about the things in the readings so that you have something insightful to say during class discussion (see above). There is a great amount of latitude in what you write about for your reflection paper; however, the overarching goal is for you to generate thoughtful insights about the methodological aspects of the readings. You may relate ideas from two or more readings, or concentrate on a specific part of one article. Do not summarize the readings. Pick one point or topic and write the whole page on it; you will get a better grade for one page in depth on one subject than 2 superficial pages on 3 subjects. Think of it as a short "discussion question" that expands your ability to think critically as higher education is supposed to do. These papers will be graded on quality, with more points awarded for the most thought-provoking writings. Remember, write on something about the method – how the hypotheses were written, the way a concept was operationalized, the choice of between or within subjects design, if a manipulation check was needed or not, etc. Each week is devoted to a specific topic related to experimental design, so use the week's topic as your focus. **Submit on paper, in class, in person, NOT by email.**

Weekly Assignments

There are 8 of these that build toward your final paper including your 3 ideas, literature review, hypotheses, sampling strategy, stimuli, manipulation check, IRB proposal, and questionnaire. These weekly assignments are your opportunity to get feedback on your experimental design prior to submitting the final paper. **Submit by email.**

Final Experimental Design Paper

This represents the culmination of the entire semester's work. It will be a full-blown research paper on an experiment, up to the results section. It should be suitable for

submission to a conference once you have collected the data, written up the results, discussion and conclusion. This part of the paper, minimum 15 pages, will include the introduction, theory and literature review, hypotheses, and a completed methods section. We will read many experiments that have been published in journals for you to model yours after. While the weekly assignments build toward the final paper, this assignment will not be just stringing them all together in one document; this is expected to be much higher quality than the weekly assignments. It needs to be clearly and concisely written, suitable for acceptance to a major conference after the subjects have been run and last half of the paper written.

Submit by email.

Grading Procedures:

The weight of assignments will be as follows:

Class attendance and participation	15%
Papers on the readings (8):	20%
Weekly assignments (8):	25%
Final experimental design paper:	40%

Grade scale:

I do not use plus/minus grading. Grades are not rounded up.

A 100-90

B 89.99-80

C 79.99-70

D 69.99-60

F 59.99-0

Grade categories are defined as:

A - The work is intellectually rigorous, shows an exceptional understanding of the material and is error free. Ready for publication with minor revisions.

B - The work illustrates a good effort at understanding the material and has few errors. A revise-and-resubmit.

C & D- The work indicates little progress toward gaining an understanding of the material and has substantial errors. Reject.

F - The work shows no understanding of the assignment or was not completed in a timely manner. The editor does not even send it out for review. Desk reject.

Turning in Assignments

Assignments are to be turned in at the beginning of the class during which they are due. **PRINT OUT and bring the thought papers on the readings to class with you. Submit other assignments by email.** Late assignments and those not properly turned in will not be accepted and will result in a grade of zero. There are

no make-ups. Exceptions: University-approved excused absences for medical illnesses with written excuses, religious holy days, official extracurricular activities, and military service up to 3 class days. If you have a planned absence, turn in assignments before the due date. There is no extra credit.

University Honor Code

The University defines academic dishonesty as cheating, plagiarism, unauthorized collaboration, falsifying academic records, and any act designed to avoid participating honestly in the learning process. Scholastic dishonesty also includes, but is not limited to, providing false or misleading information to receive a postponement or an extension on a test, quiz, or other assignment, and submission of essentially the same written assignment for two courses without the prior permission of the instructors. *You must always cite words and ideas that are not your own.* You must not self-plagiarize. By accepting this syllabus, you have agreed to these guidelines and those on the Student Judicial Services website and must adhere to them. Students who violate University rules on scholastic dishonesty are subject to disciplinary penalties, including the possibility of failure in the course and/or dismissal from the University. *Visit the Student Judicial Services Web site:* <http://deanofstudents.utexas.edu/sjs>.

Students with Disabilities

The University of Texas at Austin provides upon request appropriate academic accommodations for qualified students with disabilities. A documented disability statement from Services for Students with Disabilities must be provided to the instructor in the first week of class and all regulations of SSD followed. For more information contact the Services for Students with Disabilities at 471-6259 (voice) or 232-2937 (video phone).

Canvas

In this class I use Canvas—a Web-based course management system with password-protected access—to distribute course materials, to communicate and to post grades, among other things. You can find support in using Canvas at the ITS Help Desk at 475-9400, Monday through Friday, 8 a.m. to 6 p.m.

SCHEDULE

** Subject to change*

<p>Week 1</p> <p>AUG 31 – Introduction. History of Experiments.</p> <p>Assignment due next week. 3 ideas for an experiment you would like to conduct. Clear and concise statement of the problem, why it is important to scholars, practitioners, society. 250 words per idea.</p>
<p>Week 2</p> <p>SEPT 7 – LABOR DAY. NO CLASS</p>
<p>Week 3</p> <p>SEPT. 14 – Overview of experiments. Theory and Literature.</p> <p>Reading & Thought paper due today: SC&C Ch. 1; Thorson, Experimental Methodology; Stevens, Negative Advertising; Bausell Intro, Ch. 1&2.</p> <p>Due Today: 3 ideas</p> <p>Assignment Due next week: Pick 1 idea and revise it, add 5 pages of theory and literature</p>
<p>Week 4</p> <p>SEPT. 21 – Validity & Hypotheses.</p> <p>Reading & Thought paper due today: SC&C Ch. 2; Bausell Ch. 3 & 4; Coleman, Effects of Visuals; Cronbach's alpha; Mutz, hypothesis development.</p> <p>Due Today: Revised 1 idea, Intro, theory and lit, 6-7 pages.</p> <p>Assignment Due next week: 3+ Hypotheses.</p>
<p>Week 5</p> <p>SEPT. 28 – Effects Sizes & Sampling (& writing it up)</p>

Reading & Thought paper due today: SC&C Ch. 3; Coleman, Kids; Courtright, Rationally Thinking; Lang, The Logic of; Basil, The Use of Students.

Due Today: 3+ Hypotheses

Assignment due next week: Write up sampling strategy for your study.

Week 6

OCT. 5 – Measurement & Stimuli design.

Reading & Thought paper due today: Bausell Ch. 5; Coleman, Public Life; Grabe, Knowledge gaps; Implicit measures.

Due Today: Sampling strategy write-up

Assignment due in 2 weeks (Oct. 19): Design your stimuli & write it up

Week 7

OCT. 12 – Random Assignment & Factorial Designs.

Reading & Thought paper due today: SC&C Ch. 8; Bausell Ch. 6; Ho, Social Psychological

Due Today: None

Assignment: None

Week 8

OCT. 19 – Manipulation checks, pretests, pilot studies (& writing it up).

Reading & Thought paper due today: SC&C Ch. 5; Arpan, Protest photos; Bausell Ch. 7.

Due today: Stimuli

Assignment due next week: Write manipulation check instrument & paper write-up (except for results).

Week 9

OCT. 26 – Ethics

Reading & Thought paper due today: SC&C Ch. 9; Self-citations

Due Today: Manipulation check instrument & write-up

Assignment due next week: Prepare IRB proposal for your manipulation check

Week 10

NOV. 2 – Questionnaire construction (and writing it up).

Reading & Thought paper due today: SC&C Ch. 4 & 6; Coleman, Creativity; Aday; Posttest only; Coleman, Repetition Factor.

Due Today: IRB proposal for manipulation check

Assignment due in 2 weeks (Nov. 16): Design your questionnaire & write up

Week 11

NOV. 9 – Writing up the Methods Section

Reading & Thought paper due today: Read any 2 experimental journal articles of your choice and for a thought paper, analyze and critique the methods section write-up. Is there a pattern in the format (eg: Stimuli, participants, procedure, etc.). Is there enough information for you to replicate it? Is one article's methods section better written than the other? If so, why? The purpose of this thought paper is to examine closely how methods sections are written and think critically about them so you can do your own.

Week 12

NOV 16 – Analyzing Data & Interpreting Output.

Reading & Thought paper due today: Miller, Examining the Mediators; Schmierbach, A Little Bird.

If you have not done the paper outlined above (critiquing 2 methods sections), you may do it with these readings.

Due Today: Questionnaire & write-up

Assignment: None

Week 13

NOV. 23 – Writing up results.

Reading & Thought paper due today: Any 2 experimental studies, analyze and critique the way the results are written up a la Week 11 assignment.

Week 14

NOV. 30 – Individual Presentations.

We'll make these public and invite others. TBA but last year was Journalism conference room, BMC 3rd floor. Prepare a powerpoint a la AEJMC or ICA conference. No longer than 10 minutes each. You will be timed. Questions from the audience immediately after each presentation. Bring refreshments for the after party.

Due by email Dec. 7, noon: Final experiment paper