

ADVANCED RESEARCH METHODS (707)

FALL 2016

University of Nevada, Las Vegas

LEARNING OBJECTIVES

This course is designed to provide a graduate level overview of research methods in psychology. The specific learning objectives for this course are

1. Students will become more familiar with psychological research methods to design experiments.
2. Students will develop skills to conduct meaningful psychological research.
3. Students will write a research proposal to develop investigative skills.
4. Students will better understand diversity issues in research to increase validity of experiments.
5. Students will evaluate psychological research to identify areas of design improvement.

RESEARCH PROPOSAL

All students will be required to complete a formal (APA style) written research proposal. The research proposal should present an original study designed to test a hypothesis derived from a traditional area in psychology. The proposal should include: (a) an introduction that logically reviews the most relevant literature and derives a prediction from this literature, (b) a methods section that presents a reasonable procedure for testing the hypothesis, (c) an analytic plan accompanied by the hypothesized set of results, and (d) a discussion of the strengths and weaknesses of the proposed study. The evaluation of the research proposal will be based upon the quality of the written presentation, the quality of the hypothesis, and the appropriateness of methods and analytic plan to test the hypothesis. More information about the proposal will be presented in class. The research proposal will be worth 25% of your grade in the class.

CLASS PRESENTATION

All students will be required to make a formal presentation of their research proposal to the class. The evaluation of the presentation will be based on the quality of the proposal and the professionalism of the presentation. The class presentation will be worth 15% of your class grade.

CLASS PARTICIPATION

The student will be required to actively participant in class discussion about the readings. Class participation will be worth 15% of your class grade.

EXAMINATIONS

All examinations will consist of short answer and essay questions about information presented in the readings and class discussions. There will be two midterm examinations each worth 15% of your class grade. The first examination will be held on October 6 and second examination will be on November 8. A final examination worth 15% of your course grade and will be held on December 13 at 6:00 pm.

DISABILITIES AND RELIGIOUS HOLIDAYS

The Disability Resource Center (DRC) coordinates all academic accommodations for students with documented disabilities. The DRC is the official office to review and house disability documentation for students, and to provide them with an official Academic Accommodation Plan to present to the faculty if an accommodation is warranted. Faculty should not provide students accommodations without being in receipt of this plan. UNLV complies with the provisions set forth in Section 504 of the Rehabilitation Act of 1973 and the Americans with Disabilities Act of 1990, offering reasonable accommodations to qualified students with documented disabilities. If you have a documented disability that may require accommodations, you will need to contact the DRC for the coordination of services. The DRC is located in the Student Services Complex (SSC), Room 143, and the contact numbers are: Voice (702) 895-0866, fax (702) 895-0651. Any student missing class quizzes, examinations, or any other class or lab work because of observance of religious holidays shall be given an opportunity during that semester to make up missed work. It shall be the responsibility of the student to notify the instructor no later than the last day at late registration of his or her intention to participate in religious holidays which do not fall on state holidays or periods of class recess. This policy shall not apply in the event that administering the test or examination at an alternate time would impose an undue hardship on the instructor or the university which could not be avoided. Other student policies can be accessed at <http://studentconduct.unlv.edu/misconduct/policy.html> and <http://academicsuccess.unlv.edu/tutoring/>

READINGS

Textbook: Shadish, W., Cook, T., & Campbell, S. (2001). *Experimentation Design and Quasi-Experimental Designs for Generalized Causal Inference*. Houghton Mifflin: New York.

Causal Inference

Chapter 1: Shadish, W., Cook, T., & Campbell, S. *Experimentation Design and Quasi-Experimental Designs for Generalized Causal Inference*. Houghton Mifflin: New York.

Pirlott, A., & MacKinnon, D. (2016). Design approaches to experimental mediation. *Journal of Experimental Social Psychology, 24*, 2016.

Larzelere, R., Cox, R., & Swindle, T. (2015). Many replications do not causal inferences make: The need for critical replications to test competing explanations of nonrandomized studies. *Perspectives on Psychological Science, 10*, 380-389.

Vaidyanathan, B. et al. (2015). Causality in contemporary American sociology: An empirical assessment and critique. *Journal for the Theory of Social Behaviour, 34*, 223- 266.

White, P. (2000). A Causal attribution and Mill's Methods of Experimental Inquiry: Past, present, and prospect. *British Journal of Social Psychology, 39*, 2000.

Randomized Experiments

Chapter 8: Shadish, W., Cook, T., & Campbell, S. *Experimentation Design and Quasi-Experimental Designs for Generalized Causal Inference*. Houghton Mifflin: New York.

Sagarin, B. J., West, S. G., Ratnikov, A., Homan, W. K., Ritchie, T. D., & Hansen, E. J. (2015). Treatment Noncompliance in Randomized Experiments: Statistical Approaches and Design Issues. *Psychological Methods*. Advance online publication. <http://dx.doi.org/10.1037/met0000013>

Gallivan, J. (1991). Gender bias in students' ratings of essays. *Journal of Social Behavior and Personality, 6*, 119-124.

Internal Validity Issues

Chapter 2 (Validity pp. 54 - 63): Shadish, W., Cook, T., & Campbell, S. *Experimentation Design and Quasi-Experimental Designs for Generalized Causal Inference*. Houghton Mifflin: New York.

Mulligan, N., Susser, J., & Smith, S. (2016). The testing effect is moderated by experimental design. *Journal of Memory and Language*, 90, 49-65.

Scotti, J., Morris, L., Stacom, E., & Cohen, S. (2011). *Validity: Controlling and balancing interrelated threats*. In J. Thomas & M. Hersen, (Eds.). *Understanding research in clinical and counseling psychology* (pp. 87-125). New York: Routledge/Taylor & Francis Group.

Experimental Designs

Chapter 9 & 10: Shadish, W., Cook, T., & Campbell, S. *Experimentation Design and Quasi-Experimental Designs for Generalized Causal Inference*. Houghton Academic Mifflin: New York.

Taylor, W. et al. (2015). Ideological group persuasion: A within-person study of how violence, interactivity, and credibility features influence online persuasion. *Computers in Human Behavior*, 51, 448-460.

Charness, G., Gneezy, U. & Kuhn, M. (2012). Experimental methods: Between-subject and within-subject design. *Journal of Economic Behavior & Organization*, 81, 1-8.

Martin, K., & Leary, M (1999). Would you drink after a stranger? The influence of self- presentational motives on willingness to take a health risk. *Personality and Social Psychology Bulletin*, 25, 1092-1100.

Field Experiments

Hill, S., & Kousser, T. (2016). Turning out unlikely voters? A field experiment in the top- two primary. *Political Behavior*, 38, 413-432.

Li, J. et al. (2015). The Value of Field Experiments. *Management Science*, 61,1722-1740.

Guéguen, M. (2014). Cues of Men's Parental Investment and Attractiveness for Women: A Field Experiment, *Journal of Human Behavior in the Social Environment*, 24, 296-300. DOI: 10.1080/10911359.2013.820160

Gueguen, N. (2009). The receptivity of women to courtship solicitation across the menstrual cycle: A field experiment. *Biological Psychology*, 80, 321-324.

Mediating and Moderating Variables

Vancouver, J. & Carlson, B. (2015). All things in moderation, including tests of mediation (at least some of the time). *Organizational Research Methods*, 18, 70-91.

Pearl, J. (2014). Interpretation and Identification of Causal Mediation. *Psychological Methods*. Advance online publication. <http://dx.doi.org/10.1037/a0036434>

Baron, R. M., & Kenny, D. (1986). The moderator-mediator variable distinction in social psychological research: Conceptual, strategic, and statistical considerations. *Journal of Personality and Social Psychology*, *51*, 1173-1182.

Construct Validity

Chapter 3 (pp. 64 – 82): Shadish, W., Cook, T., & Campbell, S. *Experimentation Design and Quasi-Experimental Designs for Generalized Causal Inference*. Houghton Mifflin: New York.

Nichols, A., & Edlund, J. (2015). Practicing what we preach (and sometimes study): Methodological issues in experimental laboratory research. *Review of General Psychology*, *19*, 191-202.

Quasi Experiments

Chapters 4 & 5: Shadish, W., Cook, T., & Campbell, S. *Experimentation Design and Quasi-Experimental Designs for Generalized Causal Inference*. Houghton Mifflin: New York.

Guéguen, N. (2013). Weather and courtship behavior: A quasi-experiment with the flirty sunshine, *Social Influence*, *8*, 312-319, DOI: 10.1080/15534510.2012.752401

Reichardt, C., & Mark, M. (1998). Quasi-experimentation. In L. Bickman, & D. Rog (Eds). *Handbook of applied social research methods*. (pp.193-228). Thousand Oaks.

Nonequivalent control group

Kuesten, C., Dang, J., Nakagawa, M., Bi, J., & Meiselman, H. (2016). Propensity score analysis (PSA) for sensory causal inference – Global consumer psychographics and applications for phytonutrient supplements. *Food Quality and Preference*, *51*, 77-88.

Scalco, M. et al. (2015). Selection and socialization effects in early adolescent alcohol Use: a propensity score analysis. *Journal of Abnormal Child Psychology*, *43*, 1131-143.

Dong, N. (2015). Using propensity score methods to approximate factorial experimental designs to analyze the relationship between two variables and an outcome. *American Journal of Evaluation*, *36*, 42-66.

Eflin, J., & Kite, M. (1996). Teaching scientific reasoning through attribution theory. *Teaching of Psychology*, 23, 87-91.

External Validity

Chapter 3 (pp. 83 - 102): Shadish, W., Cook, T., & Campbell, S. *Experimentation Design and Quasi-Experimental Designs for Generalized Causal Inference*. Houghton Mifflin: New York.

Bell, S., Olsen, R., Orr, L., & Stuart, E. (2016). Estimates of external validity bias when impact evaluations select sites nonrandomly. *Educational Evaluation and Policy Analysis*, 38, 318-335

Barratt, M., Ferris, J., & Lenton, S. (2015). Hidden populations, online purposive sampling, and external validity: *Taking off the blindfold*. *Field Methods*, 27, 3-21.

Mitchell, G. (2012). Revisiting truth or triviality: The external validity of research in the psychological laboratory. *Perspectives on Psychological Science*, 7, 109-117

Anderson, C., Lindsay, J., & Bushman, B. (1999). Research in the psychological laboratory: Truth or triviality? *Current Directions in Psychological Science*, 8, 3-9.

Correlational Research and Structural Equation Modeling

Chapter 12 (pp. 389 – 416): Shadish, W., Cook, T., & Campbell, S. (2001). *Experimentation Design and Quasi-Experimental Designs for Generalized Causal Inference*. Houghton Mifflin: New York.

McArdle, J., & Nesselroade, J. (2014). Some technical details on structural equation modeling. In J. McArdle & J. Nesselroade (Eds). *Longitudinal data analysis using structural equation models* (pp. 39 – 58). Washington, DC: American Psychological Association.

Fletcher, G., Simpson, J., & Thomas, G. (2000). The measurement of perceived relationship quality components: A confirmatory factor analytic approach. *Personality and Social Psychology Bulletin*, 26, 340-354.

Naturalistic Observation

Morrison, C., Lee, J., Gruenewald, P. & Mair, C. (2016). The reliability of naturalistic observations of social, physical and economic environments of bars. *Addiction Research & Theory*, 24, 330-340.

Mehl, M., Robbins, M., & Deters, F. (2012). Naturalistic observation of health-relevant social processes: The electronically activated recorder methodology in psychosomatics. *Psychosomatic Medicine*, 74, 410-417.

Mehl, M., Gosling, S. & Pennebaker, J. (2006). Personality in Its Natural Habitat: Manifestations and Implicit Folk Theories of Personality in Daily Life. *Journal of Personality and Social Psychology*, 90, 862-877.

Archival Research and Content Analysis

Grana, R., & Ling, P. (2014). 'Smoking revolution': A content analysis of electronic cigarette retail websites. *American Journal of Preventive Medicine*, 46, 395-403.

Tov, W., Kok . & Han Qiu, L (2013). Detecting well-being via computerized content analysis of brief diary entries. *Psychological Assessment*, 25, 1069-1078.

Wagstaff, G., MacVeigh, J., Boston, R., Scott, L., Wagstaff, J. & Cole, J. (2003). Can laboratory findings on eyewitness testimony be generalized to real world? An archival analysis. *Journal of Psychology*, 137, 17-28.

Single Case Research

Kazdin, A. (2016). Single-case experimental research designs. In: *Methodological issues and strategies in clinical research* (4th ed.). Kazdin, Alan E. (Ed); Publisher: American Psychological Association; 2016, 459-483.

Garcia, R., & Sechrest, L. (2015). Single-Case and small-N experimental designs. *Psychometrika*, 80, 560-561.

Ethical Concerns in Research

Øye, C., Sørensen, N., & Glasdam, S. (2016). Qualitative research ethics on the spot: Not only on the desktop. *Nursing Ethics*, 23, 455-464.

Ashcraft, M. & Krause, J. (2007). Social and behavioral researchers' experiences with their IRBs. *Ethics & Behavior*, 17, 1-17.

Report Writing and Publication Procedures

Austin, J., & Calderon, R. (1996). Writing in APA style: Why and how. In F. Leong, & J. Austin (Eds). *The psychology research handbook: A guide for graduate students and research assistants*. (pp. 265-281). Thousand Oaks, CA, USA: Sage Publications, Inc.