

BUS 88500 Doctoral Seminar: Research Methods

Prof. Ram Bezawada

Fall 2024

Professor: Ram Bezawada

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Office Hours: Wed. 12 noon-2 p.m. or by a

Meeting Times: Wed. 2 p.m.-5 p.m.

Classroom: Ph.D. Conference Room (13-254)

Course Objectives: This course introduces doctoral students to the various research methods used in business disciplines including accounting, information systems, marketing, and management. The main objective is to enable students to design sound empirical studies and to produce publishable research papers. Throughout the course we will consider the following issues:

- Understand the diversity and commonality of research questions and methods in business disciplines.
- Identify the basic assumptions and principles underlying each method and the validity tradeoffs.
- Choose the appropriate research method to answer a research question.
- Recognize the advantages and disadvantages of each method compared to others and apply remedies to mitigate any validity concerns.
- Develop a well thought out research proposal including expected contributions and anticipated limitations.
- Review and criticize published research.
- Appreciate the ethical issues related to conducting research in academic and business settings.

Topics Covered: Conceptualization of research questions and hypothesis development, causal inference and threats to inferring causation, measurement (reliability and validity), design (experiments, quasi- experiments and surveys), as well as sampling and questionnaire development.

Format: Each week will have a topical theme. In general, we will discuss readings related to the theme along with application exercises and assignments. Although we will introduce each topic and guide class discussions, we will endeavor to conduct this as a *seminar* not a lecture. Readings from each of the disciplines will be offered so that students will be able to relate the course topics to issues and problems in their own specialization.

Expectations: During most of the semester you will be able to develop your critical thinking skills and apply your knowledge of these topics by analyzing a journal paper, writing a review of a conference paper, comparing your review to others and learning how to respond to referee reports. In general, what you will accomplish in this course will depend heavily on your reading of the assigned material (prior to class) and your active participation in the class discussions where we will integrate the readings. By the end of the course, students who have participated actively will have acquired the knowledge and skills to be educated consumers of business research and will have begun developing into competent research scientists.

Required Readings:

There are three complementary textbooks that provide background information on each topic. In addition, there is a selection of journal articles to provide deeper coverage. See list of articles below each topic in the schedule. These articles can be downloaded from the library website.

Textbooks:

- Saunders, N.K.; Lewis, P. and Thornhill, A. (2023). **Research Methods for Business Students**, 9/E, Pearson. (Note: Earlier version available online is acceptable)
- Shadish, W., Cook, T & Campbell DT (2002). **Experimental and Quasi-Experimental Designs for Generalized Causal Inference**. Houghton-Mifflin. (Copies of chapters will be provided)
- Trochim, William M. **The Research Methods Knowledge Base**, 2nd Edition. Internet WWW page, at URL: <<http://www.socialresearchmethods.net/kb/>> (October 20, 2006 version).
- Paul J. Gertler, Sebastian Martinez, Patrick Premand, Laura B. Rawlings, Christel M. J. Vermeersch (2011). **Impact Evaluation in Practice**. World Bank

In addition to the above, the following book(s) also provide useful information and may be used as reference (Note: This list will be updated throughout the semester)

- Geoffrey R. Marcyk, David DeMatteo, David Festinger (2005). **Essentials of Research Design and Methodology**. Wiley Publishing

Grading Policy:

The final grade in the seminar will be based upon the following

In-class presentations and participation	20%
Exercises/Assignments	30%
Written Examination	20%
Research Proposal Paper	30%

Exercises/Assignments: There will be a set of in-class exercises and homework to allow students to apply what they have learned. Students will select a recent paper on the top journal in their field to understand the structure of an academic paper. This *companion paper* will be analyzed to illustrate issues of internal and external validity. In addition, students will be required to take Baruch's IRB online training course and obtain the *citi certification* to conduct research with human subjects. Students will receive credit for the successful completion of the Collaborative IRB Training Initiative (<http://www.baruch.cuny.edu/hrpp/CITITraining1.htm>). Students will also be required to *write a review* of a conference paper to develop their skills as peer reviewers. Finally, students will learn to *set up an online survey in Qualtrics*.

Examination: There will be a written final exam consisting of 3 or 4 open ended questions. The exam will probe your understanding of the methods and research issues covered in the class. Most questions will be essay questions and may be presented in the form of “research problems” for which you are asked to provide the best solutions applying the content learned in this course.

Term paper: At the end of the semester, each student should present an original research proposal on any topic of his or her choice, preferably combining the impact of Information

Technology in his or her own discipline. This proposal will consist of two parts: (1) a structured review of the relevant literature from where the research question originated along with a set hypotheses and (2) a specific research method to collect data and test the hypotheses. In addition to a thorough description of experimental procedures, proposals should include an analysis of the potential limitations of the study, and potential threats to validity. After receiving feedback, final proposal papers must be submitted during the final exam week. Late proposals will not be accepted.

Course Outline: The content of the course is organized in six modules

- Introduction and Production of Research Papers
- Validity Issues and Causal Inferences
- Experimental Design
- Measurement and Survey Research
- Emerging/New Methods
- Proposal Presentation

Course Schedule

Week 1 (8/28): Research Foundations

Trochim (2006). Foundations (<https://conjointly.com/kb/foundations-of-research/>)

Latham, J. R. (2016). The research canvas: A framework for designing and aligning the “DNA” of your research study (Version 3.1 ed.). Monument, Colorado: DrJohnLatham.com (<https://www.drjohnlatham.com/frameworks/research-methods-framework/>)

Basu, S. (2019). Data First – the new scientific method. *Medium*. (<https://medium.com/insight-io/data-first-the-new-scientific-method-94d6865475ea>)

>> **Assignment #1:** Select a companion paper from a top tier journal in your discipline (Due Week 2)

>> **Assignment #2:** Register and take online course to complete citi certification (Due Week 5)

Week 2 (9/4): From Conceptualization to Design

Shadish, Cook & Campbell (2002). Ch. 1. Experiments and Generalized Causal Inference.

Trochim (2006) Designing Designs for Research (<https://conjointly.com/kb/designing-research-designs/>)

Corley, K.G., & Gioia, D.A. (2011). Building theory about theory building: What constitutes a theoretical contribution. *Academy of Management Review*, 36, 12-32.

Barrowman, N. (2014). Correlation, Causation, and Confusion. *The New Atlantis*, Number 43, Summer/Fall, pp. 23–44.

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

[*] Gray, P.H., & Cooper, W.H. (2010). Pursuing failure. *Organizational Research Methods*, 13, 620-643.

Week 3 (9/11): Internal vs. External Validity

Shadish, Cook & Campbell (2002). Ch. 2 (Internal Validity sections) & Ch. 3 (External Validity sections).

Trochim (2006). Internal Validity (<https://conjointly.com/kb/internal-validity/>) and External Validity (<https://conjointly.com/kb/external-validity/>)

Reichardt, C.S. (2011) Criticisms of and an alternative to the Shadish, Cook, and Campbell validity typology. *New Directions for Evaluation*, Vol. 2011, Issue 130, pages 43–53.

Vermeulen, F. (2005). On Rigor and Relevance: Fostering Dialectic Progress in Management Research. *Academy of Management Journal*, Vol. 48 Issue 6, 978-982.

Week 4 (Sep 18th): Experimental Designs

Shadish, Cook and Campbell (2002) Chptrs. 8, 9 and 10. Randomized Experiments and Practical Problems

Trochim (2006) Experimental Design (<https://conjointly.com/kb/experimental-design/>)

Highhouse, S. (2009). Designing experiments that generalize. *Organizational Research Methods*, 12, 554- 566.

Spencer, S. J., Zanna, M. P., & Fong, G. T. (2005). Establishing a causal chain: Why experiments are more effective than mediational analyses in examining psychological processes. *Journal of Personality and Social Psychology*, 89, 845-851.

Rosenthal, R. (1963) "On the Social Psychology of the Psychological Experiment: The Experimenter's Hypothesis as Unintended Determinant of Experimental Results," *American Scientist*, (51:2), pp. 268-283.

Week 5 (Sep 25th): Quasi-experiments and Other Experimental Designs

Shadish, Cook and Campbell, Chptrs. 4 & 5 (Quasi- Experimental Designs)

Trochim (2006) Quasi-Experimental Designs (<https://conjointly.com/kb/quasi-experimental-design/>) Trochim (2006) Advanced Designs

Eden, D. (2017) Field Experiments in Organizations. *Annual Review of Organizational Psychology and Organizational Behavior*, Vol. 4, 91-122.

Ployhart, R.E., & Vandenberg, R.J. (2010). Longitudinal research: The theory, design, and analysis of change. *Journal of Management*, 36, 94-120.

[*] Grant, A.M., & Wall, T.D. (2009). The neglected science and art of quasi-experimentation: Why-to, when-to and how-to advice for organizational researchers. *Organizational Research Methods*, 12, 653-686.

>> **Assignment #3:** Provide Critical Review a paper assigned by your professor (Due Week 7)

Week 6 (Oct 9th): Establishing Causality in Observational Data-Part 1

Gertler et al. (2011), Impact Evaluation in Practice: Impact Evaluation: Why Evaluate? (Chapter 1)

Gertler et al. (2011), Impact Evaluation in Practice: Causal Inference and Counterfactuals (Chapter 3)

Gertler et al. (2011), Impact Evaluation in Practice: Differences-in-Differences (Chapter 6)

Gertler et al. (2011), Impact Evaluation in Practice: Regression Discontinuity Design (Chapter 5)

Gertler et al. (2011), Impact Evaluation in Practice: Matching Methods (Chapter 7)

Introduction to Instrumental Variables (Instructor Notes)

Week 7 (Oct 16th): Establishing Causality in Observational Data-Some Applications

Anderson, M. and Magruder, J. (2012), "Learning from the Crowd: Regression Discontinuity Estimates of the Effects of an Online Review Database," *Economic Journal*, 122: 957-989.

Lalive, R. (2008), "How do extended benefits affect unemployment duration? A regression discontinuity approach", *Journal of Econometrics*, 142(2), 785-806.

Mealli, F. and C. Ramoichini (2012), "Evaluating the Effects of University Grants by Using Regression Discontinuity Designs", *Journal of the Royal Statistical Society (Series A)*, 175(3), 775-798.

Duflo E. and E. Saez (2003), "The Role of Information and Social Interactions in Retirement Plan decisions: Evidence from a Randomized Experiment", *Quarterly Journal of Economics*, 815-841.

Huang Q., V.R. Nijs, K. Hansen, E. T. Anderson (2012), "Wal-Mart's Impact on Supplier Profits", *Journal of Marketing Research*, 49(2), 131-143.

>>**Assignment #4:** This will be based on Causality and Observational Data (Due Week 10)

Week 8 (Oct 23rd):

Assignment 3 discussion. Introduction to Programming. Work on Assignment 3

Week 9 (Oct 30): Reliability, Measurement and Construct Validity

Trochim (2006) Reliability (<https://conjointly.com/kb/measurement-reliability/>) and Measurement (<https://conjointly.com/kb/levels-of-measurement/>)

Cortina, JM (1993). What is coefficient alpha? An examination of theory and applications. *Journal of Applied Psychology*, 78, 98-104.

[**] Diamantopoulos, A.; Sarstedt, M.; Wilczynski, P. and Kaiser, S. (2012) Guidelines for choosing between multi-item and single-item scales for construct measurement: a predictive validity perspective. *Journal of the Academy of Marketing Science*, 40:3, pp 434-449.

Shadish, Cook & Campbell (2002). Ch. 3 (Construct Validity sections)

Trochim (2006). Ch. 3. Construct Validity (<https://conjointly.com/kb/construct-validity/>)

- [**] Jarvis, C. B., MacKenzie, S B., and Podsakoff, P. M. 2003. “A Critical Review of Construct Indicators and Measurement Model Misspecification in Marketing and Consumer Research,” *Journal of Consumer Research* (30:2), pp. 199-218.

Week 9 (Oct 30th): Statistical Conclusion Validity

- Shadish, Cook & Campbell (2002). Ch. 2 (Statistical Conclusion Validity sections)
- Trochim (2006). Conclusion Validity (<https://conjointly.com/kb/conclusion-validity/>)
- Cohen, J. (1992). A power primer. *Psychological Bulletin*, 112, 155-159.
- Hunter, J.E. (1997). Needed: A ban on the significance test. *Psychological Science*, 8, 3–7.
- Mohajeri, K., Mesgari, M. and Lee, A.S. (2020) When statistical significance is not enough: investigating relevance, practical significance, and statistical significance. *MIS Quarterly*, 44 (2), 525-559.
- [*] Cohen, J. (1994). The earth is round ($p < .05$). *American Psychologist*, 49, 997–1003.
- [*] Combs, J.G. (2010). Big samples and small effects: Let’s not trade relevance and rigor for power. *Academy of Management Journal*, 53(1), 9-13.

Week 10 (Nov 6th): Survey Research

- Trochim (2006) Survey Research (<https://conjointly.com/kb/survey-research/>) and Scaling (<https://conjointly.com/kb/scaling-in-measurement/>)
- Pew Research Center (2021). Writing Survey Questions. Our Methods Section. <https://www.pewresearch.org/our-methods/u-s-surveys/writing-survey-questions/>
- Podsakoff, P.M., MacKenzie, S.B., Lee, J.-Y., & Podsakoff, N.P. (2003). Common method biases in behavioral research: A critical review of the literature and recommended remedies. *Journal of Applied Psychology*, 88: 879-903.
- [*] Foster Thompson, L., & Surface, E.A. 2007. Employee surveys administered online: Attitudes toward the medium, nonresponse, and data representativeness. *Organizational Research Methods*, 10: 241-261.
- >>**Assignment #5:** Design a pilot questionnaire in Qualtrics and collect data (Due Week 12)

Week 11 (Nov 13th): Sampling and Questionnaire Design

- Trochim (2006) Sampling (<https://conjointly.com/kb/sampling-in-research/>)
- Carpenter (2018) Ten Steps in Scale Development and Reporting: A Guide for Researchers, *Communication Methods and Measures*, 12:1, 25-44.
- Schwarz, N. (1999). Self-reports: How the questions shape the answers. *American Psychologist*, 54, 93 – 105.
- Diamantopoulos, A. and Winklhofer, H.M. (2001) Index Construction with Formative Indicators: An Alternative to Scale Development. *Journal of Marketing Research*, 38, No. 2, pp. 269-277.
- [*] Roberson, M. T., & Sundstrom, E. (1990). Questionnaire design, return rates, and

response favorableness in an employee attitude questionnaire. *Journal of Applied Psychology*, 75, 354- 357.

Week 12 (Nov 20th): Introduction to New/Emerging Methods

In this week we will discuss the following topics. The exact papers and reading will be made available later.

Text Analytics

NLP Models

Causal Random Forests

Week 13 (12/4): Introduction to New/Emerging Methods

Guest Lecture on New Methods. Project Proposal

Week 14 (12/11): Student presentations of research proposals

With Q&A and feedback from other students and recommendations for

improvement [*] Indicates optional readings

[**] Recommended Readings for Marketing Students

Important topics for self reading and discussion (time permitting)

Ethical Considerations for Research

Shadish, Cook and Campbell, Chp. 9 (Ethical and Legal issues section pp. 280-290)

Benbunan-Fich, R. (2017). The ethics of online research with unsuspecting users: From A/B testing to C/D experimentation. *Research Ethics*. 13: 3-4, 200-218.

Schminke, M. (2009). Editor's comments: The better angels of our nature—ethics and integrity in the publishing process. *Academy of Management Journal*, 34, 586-59.

Bedeian, A.G., Taylor, S.G., & Miller, A.N. (2010). Management science on the credibility bubble: Cardinal sins and various misdemeanors. *Academy of Management Learning & Education*, 9, 715-725.

Pascual-Leone, A., Singh, T., & Scoboria, A. (2010). Using deception ethically: Practical research guidelines for researchers and reviewers. *Canadian Psychology*, 51, 241-248.

Introduction to Mixed Models

Ågerfalk, P. J. (2013). Embracing diversity through mixed methods research. *European Journal of Information Systems*, 22(3), 251-256.

Teddle, C., & Tashakkori, A. (2006). A general typology of research designs featuring mixed methods. *Research in the Schools*, 13(1), 12-28.

Venkatesh, V., Brown, S. A., & Bala, H. (2013). Bridging the qualitative-quantitative divide: Guidelines for conducting mixed methods research in information systems. *MIS Quarterly*, 37(1), 21-54.

Venkatesh, V., Brown, S. A., & Sullivan, Y. (2016). Guidelines for Conducting Mixed-methods Research: An Extension and Illustration. *Journal of the AIS*. 17 (7), 435 – 494.