

BUS 88500 Doctoral Seminar: Research Methods

Prof. R. Benbunan-Fich, Fall 2020

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Meeting Times: Thurs. 2.30 pm-4.30pm

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Office Hours: Thurs. 5-6pm or by appt.
Meetings via Zoom

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 the 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 provide an introduction to 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 a deeper coverage. See list of articles below each topic in the schedule. These articles will be available online at the course website at the beginning of the semester.

Textbooks

- Trochim, William M. **The Research Methods Knowledge Base**, 2nd Edition. Internet WWW page, at URL: <<http://www.socialresearchmethods.net/kb/>> (October 20, 2006 version).
- Shadish, W., Cook, T & Campbell DT (2002). **Experimental and Quasi-Experimental Designs for Generalized Causal Inference**. Houghton-Mifflin. (Copies of chapters will be provided)
- Saunders, N.K.; Lewis, P. and Thornhill, A. (2015) **Research Methods for Business Students**, 7/E, Pearson. (Note: Earlier version available online is acceptable)

Grading Policy

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

In-class presentations and participation	10%
Exercises/Assignments	30%
Written Examination	30%
Research Proposal Paper	30%

Class Attendance and Participation: Due to the restrictions imposed by the pandemic, classes will be held via Zoom video conferencing each Thursday. In addition to connecting to the zoom meeting on time (virtual presence), students should become active participants in class discussions. To participate during the zoom meeting, students can raise their hands in the participant panel, send a question via chat, or unmute themselves and speak. If possible, students should have web cameras on and mute their microphones when not speaking. Students without video presence should be prepared to answer cold call questions at any point via voice (even if the answer is not known). Students should show that they are mentally engaged with the discussion.

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](#). 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 exam consisting of 3 or 4 open ended questions with sub-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 five modules: (1) Introduction and Production of Research Papers; (2) Validity Issues and Causal Inferences; (3) Experimental Design; (4) Measurement and Survey Research and (5) Development of a Research Proposal.

Weekly Schedule

Week 1 (8/27): Introduction

Trochim (2001). Ch. 1: Foundations

Saunders et al. (2015). Chapters 1-3

Latham, J. (2005). The Research Prospectus: Getting the DNA of your Project Right. Available at: http://johnlatham.me/wp-content/uploads/2013/12/Prospectus_Paper.pdf

Anderson, C. (2008). The end of theory: The data deluge makes the scientific method obsolete. *Wired Magazine*, 16.07. (www.wired.com/science/discoveries/magazine/16-07/pb_theory)

>> **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 6)

Week 2 (9/3): From Conceptualization to Design

Saunders et al. (2015). Ch. 4 & 5

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

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.

>> **Assignment #3:** Select a topic for your research proposal (Due Week 3)

Week 3 (9/10): Internal vs. External Validity

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

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

Trochim (2001). Ch. 6. Internal Validity section (pp. 172-185)

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

>> **Assignment #4:** Identify threats to internal and external validity in companion paper (Due Week 4)

Week 4 (9/17): Experimental Designs

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

Trochim (2001) Ch.7. 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.

>> **Assignment #5:** Review a conference paper assigned by your professor (Due Week 6)

Week 5 (9/24): Quasi-experiments and Other Experimental Designs

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

Trochim (2001) Ch. 8. Quasi-Experimental Designs and Ch. 9. Advanced Design topics

Simester, D.I.; Hauser, J.R.; Wernerfelt, B. and Rust, R.T. (2000) Implementing Quality Improvement Programs Designed to Enhance Customer Satisfaction: Quasi-Experiments in the United States and Spain. *Journal of Marketing Research*, 37, 1, pp. 102-112.

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

Venkatesh, V. & Speier, C. (1999). Computer Technology Training in the Workplace: A Longitudinal Investigation of the Effect of Mood. *Organizational Behavior and Human Decision Processes*, 1999, 1-28.

[*] 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.

Week 6 (10/1): Reliability and Measurement

Trochim (2001) Ch. 3. Reliability and Measurement Error (pp. 88-104).

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

Perreault, W. D. and Leigh, L. E. (1989) Reliability of nominal data based on qualitative judgments. *Journal of Marketing Research*, Vol 26(2), May 1989, 135-148.

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

>> **Assignment #6:** Evaluate the measures in your companion paper (Due Week 8)

Week 7 (10/8): Construct validity

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

Trochim (2001). Ch. 3. Construct Validity section (pp. 63-88)

Bagozzi, R. P., & Edwards, J. R. (1998). A general approach for representing constructs in organizational research. *Organizational Research Methods*, 1, 45-87.

MacKenzie, S.B., Podsakoff, P.M., and Podsakoff, N.P. 2011. Construct measurement and validation procedures in MIS and behavioral research: Integrating new and existing techniques. *MIS Quarterly*, 35(2), 293-334.

[**] 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 8 (10/15): Statistical Conclusion Validity

Shadish, Cook & Campbell (2002). Ch. 2 (Statistical Conclusion Validity sections)

Trochim (2001). Ch. 10. Conclusion Validity section (pp. 257-265)

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 9 (10/22): Survey Research

Trochim Ch. 4. Survey Research and Scaling

Loftus, E.F., Fienberg, S.E. and Tanur, J.M. (1985) Cognitive Psychology Meets the National Survey. *American Psychologist*, Vol. 40, N.2, 175-180.

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 #7:** Design a pilot questionnaire in Qualtrics and collect data (Due Week 12)

Week 10 (10/29): Sampling and Questionnaire Design

Trochim (2001) Ch.2 Sampling

Saunders et al. (2015) Ch. 7 & 11

Hinkin, T. R. (1998). A brief tutorial on the development of measures for use in survey questionnaires. *Organizational Research Methods*, 1, 104-121.

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 11 (11/5): Written Examination

In class test with open ended questions seeking integration of readings and knowledge in the answers. Details regarding format and timing will follow.

Week 12 (11/12): Ethical Considerations

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

Benbunan-Fich, R. (2016). The ethics of online research with unsuspecting users: From A/B testing to C/D experimentation. *Research Ethics*.

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.

Week 13 (11/19): Introduction to Mixed Methods

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

Teddlie, 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.

Week 14 (12/3): 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

Additional References for the Referee Report Assignment

To write a review of a published paper, please check the following:

- Daft, R. (1985). Why I recommend that your manuscript be rejected and what you can do about it. In Cummings, L. & Frost, P (Eds.) *Publishing in the organizational sciences*. Homewood, IL: Irwin, pp. 193-209.
- MacCoun, R (1998). Biases in the Interpretation and Use of Research Results. *Annual Review of Psychology*, 49.
- Champion, M.A. (1993). Article review checklist: A criterion checklist for reviewing research articles in applied psychology. *Personnel Psychology*, 46, 705-718.
- Lee (1995). "Reviewing a Manuscript for publication," *Journal of Operations Management* (invited note), Volume 13, 87-92. Available at: <http://www.people.vcu.edu/~aslee/referee.htm>