

**Rotman School of Management
University of Toronto
RSM 3001 – Spring 2019
Research Methods in Strategic Management**

DRAFT

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Class time: Mondays, 10AM-1PM (Starting January 14)
Classroom: RT 7024

Course Scope and Mission

This course is designed for doctoral students who wish to understand the process of knowledge creation and publish research in scholarly journals in Strategic Management and Organization Theory.

While it is generally assumed that science rationally and reliably uncovers the truth, philosophers of science have tended to disagree. The first half of the course introduces major problems and movements in the philosophy of science, which studies the assumptions, foundations, methods, and implications of science, and well as its use and merit. We will discuss traditional themes such as theory and observation, induction, probability, and falsification, critiques articulated by relativists, feminists, and sociologists of knowledge, as well as challenges to these critics from contemporary realist and Bayesian perspectives. By the end of the course, students will be prepared to critically discuss the nature of science, scientific methods, scientific knowledge, scientific explanation, and the role of the social organization of science in its achievements.

The second half of the course is organized following the stages in the research process, beginning with framing research questions, research design, and continuing to consideration of alternative research approaches. We will discuss topics and study exemplars, in experimental design, survey design, ethnography, case studies, and archival research. By the end of the course, students will be prepared to critically evaluate design and method choices for their own research.

Required Texts

Because it is difficult to achieve a comprehensive review of current ideas on Philosophy of Science and Research Methods within course time constraints, the option exercised here is to draw on two exemplary texts (and selected additional readings available from Robarts Library) that bring students up to speed on core issues, and read recent research articles that provide exemplars (mostly good, but some bad!) of the issues discussed in the readings. Students are expected to make copies of these readings from the library's journal and book collection, and to obtain copies of the texts (If not available from the UofT bookstore, Internet booksellers will be quickest). We will provide copies of any materials not available from the library.

- Peter Godfrey-Smith. 2003. *Theory and Reality: An Introduction to the Philosophy of Science*. University of Chicago Press. (POS)
- Royce A. Singleton and Bruce C. Straits 2009. *Approaches to Social Research (5e)*. Oxford University Press. (ASR)

Course Grade

Course assignments (70% of the course grade)

1. **Research Question** (Due session 4; 5%; 2 pages, typed, double-spaced). Describe a research question that interests you. Why is an answer to this question is relevant (and interesting) to scholars and practitioners in Strategic Management and Organization Theory? You may find the following reading helpful as you develop your research question:
 - Wayne C. Booth, Gregory G. Colomb, and Joseph M. Williams. 2003. From Topics to Questions (Chap. 3), From Questions to Problems (Chap. 4). *The Craft of Research*. University of Chicago Press.
2. **Literature Search** (Due session 6; 5%; 2 pages, typed, double-spaced). Identify 10-12 articles that address your research problem directly. Compile a reference list following the format used in *Strategic Management Journal*. (Note: If you revise your research question, for example, because your literature search indicates that your original question is addressed in prior research, please submit your revised research question along with the Literature Search.)
3. **Theory and Hypotheses** (Due session 9; 15%; 4-6 pages, typed, double-spaced). Discuss the theoretical perspectives that you find most directly relevant to your research problem. Derive 2-3 hypotheses that relate to your research problem. How do these hypotheses contribute to our knowledge? Begin your report with a concise statement of your research question. (Note: Your reports will be circulated as reading materials for Session 10).
4. **Presentation and Review** (Due session 10; 10% and 5%, respectively). Present Progress Report 3 (15 minutes) and prepare (2-3 pages, typed, double-spaced) and deliver (5 minutes) a review of a classmate's Theory and Hypotheses report.
5. **Research Proposal** (Due 1 week after session 12; 30%; 8-10 pages, typed, double-spaced, plus references). Prepare a research grant proposal for submission to a funding agency (e.g., Social Science and Humanities Research Council of Canada, SSHRC). Base the proposal on your prior assignments and received feedback. Include in your proposal a discussion of the contributions of your research for theory and practice, a detailed description of your research design and methods, as well as the data you will collect to conduct your research.

Class participation (30% of the course grade)

What you get out of class discussion depends on what you put in. Regular participation is critical to your success in this course – we will cover a good deal of material each class and later classes will build on ground covered in earlier classes. Complete assigned readings and assignments prior to each class, and be prepared to discuss the readings. Use provided discussion questions to guide, but not constrain, your preparation.

Students will be asked to open our discussion of the readings each week. When called on, it is anticipated that you will be able to outline the topic of each reading, describe its core points, and, most importantly, offer your analysis of the reading's central argument or use of research methods.

Each member of the class is a co-producer of the class discussion. Listen carefully to one another, and attempt to build on or constructively critique each other's prior comments. An effective participant:

- is a good listener
- makes points relevant to the ongoing discussion
- makes comments that add to our understanding of a reading or article
- is willing to challenge ideas that are being expressed
- integrates material from past classes, other courses

Each student will submit a one-page evaluation and grade out of 20 (Due 1 week after session 13, along with the Research Proposal), based on these five criteria, for each other student in the class. These scores will be averaged with one assigned by me to determine the 20% participation grade.

Class Schedule

PART I

Session 1 (Jan 14). What is (Social) Science?

POS: Introduction (Chap. 1)

Article: K. Popper. 1953. *Science: Conjectures and Refutations*. Lecture, Peterhouse, Cambridge.

Article: J. Ziman. 1978. *What is Science? The Force of Knowledge*. Cambridge University Press.

Article: P. Feyerabend. 1975. How to Defend Society against Science. *Radical Philosophy*, 11: 3-8.

Article: P.R. Thagard. 1978. Why Astrology is a Pseudoscience. *PSA: Proceedings of the Biennial Meeting of the Philosophy of Science Association, Volume One: Contributed Papers: 223-234*.

Video: [Richard Feynman: Scientific Method](#)

Discussion Questions:

1. Can science be distinguished from other human activities? Is such “demarcation” important?
2. How do Popper, Ziman, and Thagard demarcate science?
3. How would you respond to Feyerabend's charges on behalf of the scientist?
4. Are our fields – strategic management and organization theory – science or pseudoscience?
5. What is the scientific process? What does it achieve?
6. What makes a research question interesting?

Session 2 (Jan 21). Logical Empiricism, Induction and Confirmation, Conjecture and Refutation

POS: Logic Plus Empiricism (Chap. 2); Induction and Confirmation (Chap. 3); Conjecture and Refutation (Chap. 4)

Article: C.G. Hempel. 1966. *Philosophy of Natural Science*, Chapters 2-3. New York: Prentice Hall.

Article: D. Hume. 1748. *An Enquiry Concerning Human Understanding*, Section IV, Parts I & II.

Article: K. Popper. 1959. *The Logic of Discovery*. Chapters 1, 5, & 10. New York: Basic Books.

Video: [Ayer on Logical Positivism](#)

Video: [Karl Popper: Uncertain Truth](#)

Discussion questions:

1. Distinguish: deduction, induction, confirmation, conjecture, and refutation.
2. What roles do logic and empiricism play in science?
3. How do logical empiricists understand science? How does it differ from falsificationists' understanding?
4. What can observations and experiments tell us about the world?
5. How are scientific theories tested?
6. How do we know that water is wet?

Session 3 (Jan 28). Normal Science, Revolutions, and Thinking after Kuhn

POS: Kuhn and Normal Science (Chap. 5); Kuhn and Revolutions (Chap. 6); Lakatos, Laudan, Feyerabend and Frameworks (Chap. 7)

Article: T. Kuhn. 1970. *The Structure of Scientific Revolutions*. (Excerpt.) University of Chicago Press.

Article: T. Kuhn. 1974. Logic of Discovery or Psychology of Research? In I. Lakatos & A. Musgrave (eds.), *Criticism and the Growth of Knowledge*. Cambridge University Press: 1-24.

Article: I. Lakatos. 1973. Science and Pseudoscience BBC radio broadcast. June 30. Transcript.

Article: W. Salmon 1981. Rational Prediction. *British J. Philosophy of Science*, 32: 115-125.

Audio: [Imre Lakatos: Science and Pseudoscience](#)

Video: [Thomas Kuhn: The Structure of Scientific Revolutions](#)

Discussion questions:

1. What is normal science? What are its goals?
2. What is a paradigm? A research program? A research tradition? What are the elements of each?
3. What roles do paradigms, research programs, and research traditions play for researchers?
4. What factors lead to scientific revolutions? How do researchers respond?

5. How do researchers modify theories? Choose among them?
6. How do we know science is making progress?
7. Which of the four philosophers – Popper, Kuhn, Lakatos, and Thagard – do you think does the best job distinguishing science from pseudoscience?
8. Is it true that there is no truth?

Session 4 (Feb 4). Sociological and Feminist Perspectives (Research Question due)

POS: Sociology of Science (Chap. 8); Feminism and Science Studies (Chap. 9)

Article: B. Latour and S. Woolgar. 1979. *Laboratory Life. From Order to Disorder* (Chap. 1), *The Construction of a Fact* (Chap. 3). Princeton University Press.

Article: H. Longino 1983. Beyond 'Bad Science': Skeptical Reflections on the Value-Freedom of Scientific Inquiry. *Science, Technology, & Human Values* 8(1): 7-17.

Video: [Bruno Latour: The Relativist](#)

Discussion questions:

1. How do norms of the research community affect the knowledge it produces?
2. How does the composition of the research community affect the knowledge it produces?
3. What counts as observation? Can we theorize entities we cannot observe?
4. Is observation objective? Are "facts" discovered or created?
5. What can research tell us about philosophical accounts of science?
6. Is it still true that there is no truth?

Session 5 (Feb 11). Naturalist Perspectives

POS: Naturalistic Philosophy (Chap. 10); Social Structure of Science (Chap. 11)

Article: R.K. Merton. 1957. Priorities in Scientific Discovery: A Chapter in the Sociology of Science. *American Sociological Review*, 22(6): 635-659.

Article: B. Latour and S. Woolgar. 1979. *Laboratory Life. Cycles of Credit* (Chap 5). Princeton University Press.

Article: D.L. Hull. 1988. A Mechanism and Its Metaphysics: An Evolutionary Account of the Social and Conceptual Development of Science. *Biology and Philosophy* 3: 123-155.

Article: J. Ziman. 1996. Is Science Losing its Objectivity? *Nature* 382: 751-754.

Discussion questions:

1. How do norms of the research community affect the knowledge it produces?
2. How does the composition of the research community affect the knowledge it produces?
3. What can research tell us about philosophical accounts of science?
4. What motivates scientists?
5. Which of the three writers – Merton, Latour, and Hull – do you think does the best job characterizing the nature and workings of science?

Session 6 (Feb 18). Scientific Realism and Explanation (Literature Search due)

POS: Scientific Realism (Chap. 12); Explanation (Chap. 13); Empiricism, Naturalism, and Scientific Realism (Chap. 15)

Article: P. Kitcher and W. Salmon. 1989. Four Decades of Scientific Explanation. *Scientific Explanation*. University of Minnesota Press.

Article: M. Moldoveanu and J.A.C. Baum. 2002. Contemporary Debates in Organizational Epistemology. (Chap. 32) *Companion to Organizations*. Blackwell: London.

Article: J. Leplin. 2007. Enlisting Popper in the Case for Scientific Realism. *Philosophia Scientiæ*.

Discussion questions:

1. Does science explain? What counts as good scientific explanation?
2. What is scientific realism? Why has it come to prominence, and what challenges does it face?
3. Must a good theory be true?
4. One last time, it is true that there is no truth?
5. What is your philosophy of science?

PART II**Session 7 (Feb 25). Research Design, Measurement, and Sampling**

ASR: Research Design (Chap 4), Measurement (Chap. 5), and Sampling (Chap. 6)

Article: A.H. Van de Ven and M.S. Poole. 2005. Alternative Approaches for Studying Organizational Change. *Organization Studies* 26(9): 1377-1404.

Article: R.A. Berk. 1983. An introduction to sample selection bias in sociological data. *American Sociological Review* 48: 386-398.

Article: T.J. Bouchard. 1976. Unobtrusive Measures: An Inventory of Uses. *Sociological Methods and Research* 4(3): 267-300.

Article: M.M. Jimenez-Barrionuevo, V.J. Garcia-Morales, and L.M. Molina. 2011. Validation of an instrument to measure absorptive capacity. *Technovation* 31: 190-202.

Article: T.C. Flatten, A. Engelen, S.A. Zahra, and M. Brettel. 2011. A measure of absorptive capacity: Scale development and validation. *European Management Journal* 29: 98-116.

Article: E. Daneels. 2008. Organizational Antecedents of Second Order Competences. *Strategic Management Journal* 29: 519-543.

Discussion questions:

1. What are the basic choices in research design? How are they made? What are their implications?
2. How are problem-formulation, theory-building, and research design related?
3. What are the qualities of a good measure?
4. What are “unobtrusive” measures? What are their advantages and disadvantages?
5. How do you choose among the various sampling designs?
6. What is the significance of variance and process research methods?
7. What is your assessment of the “absorptive capacity” measures developed in Jimenez-Barrionuevo et al. (2011) and Flatten et al. (2011)? Which would you adopt? Why?
8. What is your assessment of research design, measurement, and sampling in Daneels (2008)?

Session 8 (Mar 4). Experimental Design

ASR: Experimentation (Chap. 7) and Experimental Designs (Chap. 8)

Article: D.D. Bergh, R. Hanke, P. Balkundi, M. Brown, X. Chen. 2004. An Assessment of Research Designs in Strategic Management Research: The Frequency of Threats to Internal Validity. *Research Methodology in Strategy and Management* 1: 347-363.

Article: A.M. Grant and T.D. Wall. 2009. The Neglected Science and Art of Quasi-Experimentation: Why-to, When-to, and How-to Advice for Organizational Researchers. *Organizational Research Methods* 12(4): 653-686.

Article: A. Tilcsik. 2011. Pride and prejudice: Employment discrimination against openly gay men in the United States. *American Journal of Sociology* 117: 586-626.

Article: R. Agarwal, R. Croson, and J.T. Mahoney. 2010. The role of incentives and communication in strategic alliances: An experimental investigation. *Strategic Management Journal*, 31: 413-437.

Article: S. Billinger, N. Stieglitz, and T.R. Schumacher. 2014. Search on Rugged Landscapes: An Experimental Study. *Organization Science* 25(1): 93-108.

Discussion questions:

1. What is the basic philosophy behind experimentation?
2. Distinguish between internal and external validity. How can you increase the external validity of an experiment?
3. What are the four main parts of an experiment? What is the purpose of manipulation checks?
4. What is the different between an “impact” and a “judgment” experiment?
5. Describe ways in which demand characteristics and experimenter effects can influence the outcome of an experiment. How can you minimize these biases?
6. Compare the advantages and disadvantages of field and natural versus lab experiments.
7. What is your assessment of experimental design in Tilcsik (2011), Agarwal et al. (2010), and Billinger et al. (2014)?

Session 9 (Mar 11). Survey Research (Theory and Hypotheses Due)

ASR: Survey Research (Chap. 9) and Survey Instrumentation (Chap. 10).

Article: D. Tomaskovic-Devey, J. Leiter and S. Thompson. 1994. Organizational Survey Nonresponse. *Administrative Science Quarterly* 39(3): 439-457.

Article: L. Poppo and T. Zenger. 1998. Testing Alternative Theories of the Firm: Transaction Cost, Knowledge-Based, and Measurement Explanations for Make-Or-Buy Decisions in Information Services. *Strategic Management Journal* 19: 853-877.

Article: K.D. Elsbach, C.B. Bhattacharya 2001. Defining who you are by what you're not: Organizational disidentification and The National Rifle Association. *Organization Science* 12: 393-413.

Article: R. Reagans and B. McEvily. 2003. Network Structure and Knowledge Transfer: The Effects of Cohesion and Range. *Administrative Science Quarterly* 48(2): 240-267.

Article: R.A. Brands, J.I. Menges, and M. Kilduff. 2015. The Leader-in-Social-Network Schema: Perceptions of Network Structure Affect Gendered Attributions of Charisma. *Organization Science* 26(4):1210-1225.

Discussion questions:

1. What is the role of large-scale survey research?
2. Why do election polls often yield different findings?
3. What are the advantages of person-to-person interviewing? Telephone interviewing?
4. Why do response rates matter?
5. What are key sources of survey error?
6. What is your assessment of the survey methods in Poppo and Zenger (1998), Elsbach and Bhattacharya (2001), and Brands et al. (2015)?

Session 10 (Mar 18). Field Research (Theory and Hypotheses Presentation/Review due)

ASR: Field Research (Chap. 11)

Article: K.M. Eisenhardt 1989. Building theories from case study research. *Academy of Management Review*, 14: 488-511.

Article: M. Gibbert, W. Ruigrok, B. Wicki. 2008. What passes as a rigorous case study? *Strategic Management Journal* 29(13): 1465-1474.

Article: A.H. Van de Ven and M.S. Poole. 2002. Field Research Methods. (Chap. 38) *Companion to Organizations*. Blackwell: London.

Article: A.K. Chatterji, M. Findley, N.M. Jensen, S. Meier, D. Nielson. 2016. Field Experiments in Strategy Research. *Strategic Management Journal* 37: 116–132.

Article: N. Lacetera, M. Macis, R. Slonim. 2014. Rewarding volunteers: A field experiment. *Management Science* 60: 1107-29.

Article: S. Ansari, R. Garud, and A. Kumaraswamy. 2015. The Distruptor's Dilemma: TiVo and the US Television Ecosystem. *Strategic Management Journal* 37(9): 1829-1853.

Discussion questions:

1. How does field research differ from experimental and survey research?
2. What are the strengths and weaknesses of field research relative to experiments and surveys?
3. What is "grounded" theory? How does this term apply to field research?
4. What is "process theory"? How does this term apply to field research?
5. What are "unobtrusive" measures? What are their advantages and disadvantages?
6. How do you analyze field data? How can the validity of field research findings be enhanced?
7. When is field research likely to pose ethical problems?
8. What is your assessment of the field methods in Chatterji et al. (2016) Lacerta et al. (2014), and Ansari et al. (2015)?

Session 11 (Mar 25). Archival Research

ASR: Research Using Available Data (Chap. 12)

Article: M.J. Ventresca and J.W. Mohn. 2002. Archival Research Methods. (Chap. 35) *Companion to Organizations*. Blackwell: London.

- Article:** R. Suddaby and R. Greenwood. 2005. Rhetorical strategies of legitimacy. *Administrative Science Quarterly* 50(1): 35-67.
- Article:** N. Lacetera, D.G. Pope, and J.R. Sydnor. 2012. Heuristic thinking and limited attention in the car market. *American Economic Review* 102: 2206-36.
- Article:** C.C. Liu and S.B. Srivastava 2015. Pulling closer and moving apart: Interaction, identity, and influence in the U.S. Senate, 1973 to 2009. *American Sociological Review* 80(1):192-217.
- Article:** S. Kaplan and K. Vakili. 2015. The double-edged sword of recombination in breakthrough innovation. *Strategic Management Journal* 36(10): 1435–1457.

Discussion questions:

1. How does research using available data differ from the other three methods of social research?
2. What are the advantages of research using available data?
3. What special measurement and sampling problems are presented by archival research?
4. What are the four different forms of historical analysis?
5. What is content analysis? What steps are involved? How are data quantified in content analysis?
6. How do you evaluate available data?
7. What is your assessment of the archival methods in Suddaby and Greenwood (2005), Lacetera et al. (2012), and Liu and Srivastava (2015)?

Session 12 (Apr 4). Research Programs/Multi-Method (Research Proposal due next week)

ASR: Multiple Methods (Chap.13)

- Article:** T.D. Jick. 1979. Mixing qualitative and quantitative methods: Triangulation in action. *Administrative Science Quarterly* 24: 602-611.
- Article:** S.F. Turner, L.B. Cardinal, and R.M. Burton. 2017. Research Design for Mixed Methods: A Triangulation-based Framework. *Organizational Research Methods* 20(2): 243-267
- Article:** L. Doering. 2016. Necessity Is the Mother of Isomorphism. *Sociology of Development* 2(3): 235-264.
- Article:** J.A.C Baum and T.K Lant. 2003. Hits and Misses: Managers' (Mis)Categorization of Competitors in the Manhattan Hotel Industry. *Geography and Strategy: Advances in Strategic Management* 20: 119-156.
- Article:** D. Bardolet, C.R. Fox, and D. Lovallo. 2011. Corporate capital allocation: A behavioral perspective. *Strategic Management Journal* 32: 1465-1483.
- Article:** R.J. Ely. 1994. The Effects of Organizational Demographics and Social Identity on Relationships among Professional Women. *Administrative Science Quarterly* 39(2):203-238.

Discussion questions:

1. What is the principle of triangulation?
2. How is triangulation conducted in experiments, surveys, field studies, and archival studies?
3. Why mix quantitative and qualitative methods?
4. Why is cumulativeness in research important?
5. What is your assessment of the GLOBE research program design?
6. What is your assessment of the multi-method approaches in Doering (2016), Baum and Lant (2003), Bardolet et al. (2011), and Ely (1994)?