



Behavioral Research Methods B55.4388

Professor Lee Sproull
Deans Office
11-55 Kaufman Management Center
998-0804
lsproull@stern.nyu.edu

Professor Joel Steckel
Marketing Area
9-67 Kaufman Management Center
998-0521
jsteckel@stern.nyu.edu

The course meets Thursday 9-12 in KMC 9-172. The most up to date version of course documents can be found on Blackboard.

Goals:

1. Introduce students to the process of behavioral research.
2. Introduce students to some major methods for data collection and analysis.
3. Introduce students to critical skills in evaluating the methodological component of published research.
4. Give students a framework for deciding what additional methods training they should pursue.

Assumptions:

1. The only way to learn how to do research is to do it.
2. Method and epistemology are inextricably linked.
3. Although advanced projects (e.g., doctoral dissertations) require an intimate connection between subject matter and method, it is possible to teach an introduction to methods while students are just beginning to acquire subject-matter expertise.
4. Understanding empirical methods helps students be more critical readers of research in their home disciplines.
5. This course plus other methods courses and courses in the student's area of study should equip each student to work with a faculty member in the home department to produce a second-year research paper and then to do thesis research.

Activities:

1. Critically read, discuss, and present selections from the literature on research methodology.
2. Critically read and discuss journal articles from home disciplines employing various methodologies.
3. Design, carry out, and communicate the results of a field observation, an experiment, and a survey.

Grading:

Observation	10%
Experiment	35%
Survey	35%
Article critiques	20% (Due 12/20 in lieu of a final exam.)

Required Texts:

- ◆ Hoyle, Rick H., Monica J. Harris and Charles M. Judd. *Research Methods in Social Relations*, 7th ed. ISBN: 0-15-506139-9.
- ◆ Campbell, Donald T. and Julian C. Stanley. *Experimental and Quasi-Experimental Designs for Research*. ISBN: 0-395-30787-2.
- ◆ Bausell, R. Barker, *Conducting Meaningful Experiments: 40 Steps to Becoming a Scientist*. ISBN: 0-8039-5531-6.

You should order these immediately from Amazon or another online book distributor.

Other Readings:

Other readings will be made available to students in the following manner. Nadia Cureton in the Marketing Department and Jillian James in the Information Systems Department will have one copy of each reading. Students should see one of them and make a personal copy of the selected reading. Please see them only when you are ready to make a copy, lest others need the reading and find it missing.

In addition a small number of two books have been purchased for the class and will be distributed to the students to share. The books are:

- ◆ Dillman, D.A. (1999) *Mail and Internet Surveys: The Tailored Design Method* 2nd. Ed. NY: John Wiley.
- ◆ *Publication Manual of the American Psychological Association*, 5th edition, July 2001.

Readings and other assignments should be completed before each class.

Presentation of Readings:

During the first week of class, each student will make a selection of one of a set of the assigned readings for an oral presentation and a written presentation. The presenter should have the following goals in mind when preparing:

1. Present the main ideas (3 at most) of the reading to the class;
 2. Relate those ideas to other work in the course (your own, your classmates', and other readings); and
 3. Describe whether those main ideas will improve your research and, if so, how.
- The presentations should last no more than 10 minutes and the extent to which each of the three goals above are addressed will vary across readings.

SESSION 1 (9/9): THE RESEARCH PROCESS

Readings for Session 1:

- ◆ HHJ chaps 1-4.
- ◆ Bausell, Chapter 1-2.
- ◆ Langer, Ellen J. (1982), The illusion of control. In Kahneman, Slovic, and Tversky (eds.), *Judgment Under Uncertainty: Uncertainty and Biases*, pp. 231-238.
- ◆ Optional:
 - Dubin, Robert (1976), "Theory Building in Applied Areas," in Marvin D. Dunnette (ed.), *Handbook of Industrial and Organizational Psychology*, Chicago: Rand-McNally.
 - Mahoney, Michael (1979), "Psychology of the Scientist: An Evaluative Review," *Social Studies of Science*, Vol. 9, 349-75.

Assignment for Session 1:

- ◆ Complete observational study and email results to instructors by 9 am on 9/7. Instructions for this study can be found at the end of the syllabus.
- ◆ Complete the protection of human subjects certification process found at <http://www.nyu.edu/osp/cert/tutorial.html>

Learning Points for Session 1:

- 1) The research process
 - a) Theory, data, analysis, communication and peer review
 - b) Science is an iterative process: epicycles of scientific discovery
 - c) Science is a social process
- 2) Understanding of the following concepts:
 - a) Construct
 - b) Variable (Independent and Dependent)
 - c) Operationalization
 - d) Hypothesis (main effect and interaction)
 - e) Criteria for evaluating research: the validities

SESSION 2 (9/16): FUNDAMENTALS OF EXPERIMENTAL DESIGN AND METHOD

Readings for Session 2:

- ◆ HHJ, Chapters 11-12
- ◆ Bausell, Chapters 3-6
- ◆ Campbell, Donald T. and Julian C. Stanley (1963), *Experimental and Quasi-Experimental Designs for Research*, Dallas: Houghton-Mifflin, pp. 1-34.

Assignment for Session 2:

- ◆ Develop hypotheses related to a phenomenon of interest that could be investigated in an experiment. The hypotheses should specify variables and reflect two main effects and an interaction. Be prepared to present your hypotheses and the reasoning behind them in class.

Learning Points for Session 2:

- 1) Causal relationships are best examined through experiments
- 2) There is a tradeoff between the confidence with which we can establish causality in the experiment (internal validity) and the degree to which the results generalize beyond the experiment (external validity)
- 3) Developing hypotheses

SESSION 3 (9/23): COLLECTING EXPERIMENTAL DATA

Readings for Session 3:

- ◆ HHJ, Reread Chapters 4, 11, and 12
- ◆ Bausell, Chap. 7-8

Assignment for Session 3:

Design an experiment to test the hypotheses developed in assignment for session 2. The design should specify operational manipulations, measurements, and procedures. Be prepared to present the design in class.

Learning Points for Session 3:

- 1) Creating interesting, testable hypotheses is challenging.
- 2) Operational measures must reflect theoretical constructs
- 3) Manipulation checks verify construct validity of experimental factor
- 4) Field experiments are great.

SESSION 4 (9/30): ANALYSIS OF EXPERIMENTAL DATA

Readings for Session 4:

- ◆ HHJ, Chapter 17
- ◆ Bausell, Chap 9
- ◆ Lehmann, Gupta, and Steckel, “Measuring Differences Between Key Variables” chapter
- ◆ Optional:
 - Snedecor, George W. and William G. Cochran (1989), *Statistical Methods*, 8th ed., Ames, IA: Iowa State University Press, Chapters 12-14.

Assignment for Session 4:

Revise experimental design based on feedback from session three. Construct plan for data collection and analysis. Be prepared to present design and plans in class.

Learning Points for Session 4:

- 1) Experiments must be designed with the method of analysis in mind.
- 2) The analysis of variance is the common technique used to analyze experimental data.
- 3) Information in experimental data is captured by how much variation can be contributed to various sources.
- 4) Interaction plots often provide the most interesting results of any given study.
- 5) Thurstone's model of observed data and its connection to measurement reliability

SESSION 5 (10/7): PRESENTING THE RESULTS OF AN EXPERIMENTAL STUDY; WEB EXPERIMENTS

Readings for Session 5:

- ◆ HHJ, chapter 20
- ◆ *Publication Manual of the American Psychological Association*, Chapters 1 and 4.
- ◆ Optional:
 - Reips, Ulf-Dietrich (2002), Standards for Internet-Based experimenting, *Experimental Psychology* 49: 243-256.
 - <https://implicit.harvard.edu/implicit/>
 - Lynch, John G. Jr. (1982), "On the External Validity of Experiments in Consumer Research", *Journal of Consumer Research*, Volume 9, No. 3, (December), 225-239.

Assignment for Session 5:

- ◆ Work on experiment.
- ◆ Visit web site and take at least one test.

Learning Points for Session 5:

- 1) Review data analysis
- 2) What characterizes an effective presentation of an experiment?
- 3) What are the tradeoffs in conducting experimental research over the Internet?

SESSION 6 (10/14): PRESENTATION OF EXPERIMENTS

Readings for Session 6:

- ◆ Review HHJ Chapters 11 & 12
- ◆ Optional:
 - Meier, Paul, "The Biggest Public Health Experiment Ever: The 1954 Field Trial of the Salk Poliomyelitis Vaccine."

Assignment for Session 6:

- ◆ Prepare oral presentation of experiment to be presented in session 6.
- ◆ Be prepared to discuss the pitfalls you encountered in the conduct and analysis of your experiment.

Learning Points for Session 6:

- 1) How to present experimental research
- 2) How to critique presentations of research
- 3) Strengths and weaknesses of experimental research

SESSION 7 (10/21): INTRODUCTION TO NON-EXPERIMENTAL RESEARCH**Readings for Session 7:**

- ◆ Review HHJ Chapter 20; Review APA Manual
- ◆ HHJ chapters 14-16
- ◆ Optional:
 - Gallup, George (1972), "Opinion Polling in a Democracy,"

Assignment for Session 7

- ◆ Turn in write up of experiment. Follow APA guidelines exactly.

Learning Points for Session 7:

- 1) Why do non-experimental research?
- 2) Broad classes of non-experimental research; strengths and weaknesses of each

SESSION 8 (10/28): INTRODUCTION TO STRUCTURED QUESTIONNAIRES**Readings for Session 8:**

- ◆ HHJ chapters 6-7
 - Baron, R.M. & Kenney, 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.

Assignment for Session 8:

- ◆ In groups, create hypotheses relevant to college freshmen that can be tested via structured questionnaire. The hypotheses should specify variables and reflect main effects and a mediation or moderation. Be prepared to present the hypotheses in session 8.

Learning Points for Session 8:

- 1) Procedures in questionnaire research are designed to maximize response rate and minimize response bias
- 2) The role of mediators and moderators in behavioral research

SESSION 9 (11/4): QUESTIONNAIRE MEASURES**Readings for Session 9:**

- ◆ HHJ, pp.96-10
- ◆ Hinkin, Timothy R. (1998), "A brief tutorial on the development of measures for use in survey questionnaires," *Organization Research Methods*, 1: 104-121.
- ◆ Lehmann, Gupta, and Steckel Factor Analysis chapter
- ◆ Optional:
 - Schwartz, Norbert (1999), "Self-reports: How the questions shape the answers," *American Psychologist*, February, 93-105.

Assignment for Session 9:

- ◆ Operationalize one of the constructs in your hypothesis from previous session with two multi-item unidimensional scales and be prepared to present your operationalizations in session 9. One scale should be previously published (present items, reliabilities, and citation to the literature). The other should be constructed by you (present items). Bring enough hard copies of your assignment so that every student may have one.

Learning Points for Session 9:

- 1) Multi-item scales
 - a) Why are they useful?
 - b) How are they constructed?
 - c) How is their quality assessed?
- 2) How to increase response rate and decrease bias

SESSION 10 (11/11): QUESTIONNAIRE DESIGN**Readings for Session 10:**

- ◆ Dillman book, especially chaps 1-3
- ◆ Optional:
 - Chapters 6 & 7 in Nunnally

Assignment for Session 10:

- ◆ Administer original scale and calculate reliabilities
- ◆ Create draft questionnaire, properly formatted (i.e., follow Dillman), which includes
 - Introduction to questionnaire and instructions to respondents
 - Items from published scale
 - Items from revised original scale
 - Additional items necessary to test your hypothesesBring enough hard copies so that everyone in class may have one.

Learning Points for Session 10:

- 1) Review questionnaire design, construction, and administration
- 2) Review multi-item scales

SESSION 11 (11/18): SAMPLING; OBSERVATIONAL RESEARCH; DOCUMENT ANALYSIS**Readings for Session 11:**

- ◆ Lehman, Gupta, and Steckel Sampling in Marketing Research chapter
- ◆ Dillman book, chaps 1-3 (review)
- ◆ HHJ Chap 15 (review)
- ◆ Weber, R. P. (1990), first two chapters of *Basic Content Analysis*. Thousand Oaks, CA: Sage Publications. [Chap 3 is optional]
- ◆ Optional:
 - HHJ, chapters 8-10

Assignment for Session 11:

- ◆ Finalize questionnaire. Plan for administration on Nov 22 & 23. Plan for data entry and analysis.

Learning Points for Session 11:

- 1) Sampling plan affects response rate and response bias
- 2) Web-based survey tools
- 3) Analysis of content and behavior both depend upon sampling and coding

11/27: THANKSGIVING—NO CLASS

SESSION 12 (12/2): QUESTIONNAIRE continued; CASE STUDIES**Readings for Session 12:**

- ◆ Your study one papers, posted on Blackboard site
- ◆ Cooper, L. (1945), “Louis Agassiz as a Teacher”
- ◆ Adler, P.A. & P. Adler, (1998), “Observational techniques.” In Norman K. Denzin and Yvonna S. Lincoln (eds), *Collecting and Interpreting Qualitative Materials*, pp. 79-109. Thousand Oaks, CA: Sage Publications.
- ◆ Golden-Biddle, Karen and Karen Locke (1993), “Appealing work: An investigation of how ethnographic texts convince,” *Organization Science*, 4, pp. 595-616.
- ◆ Optional:
 - Stake, R.E. (1998), “Case studies,” in Norman K. Denzin and Yvonna S. Lincoln (eds), *Strategies of Qualitative Inquiry*, pp. 86-109. Thousand Oaks, CA: Sage Publications.
 - Huberman, A.M and M.B. Miles (1998), “Data management and analysis methods,” In Norman K. Denzin and Yvonna S. Lincoln (eds), *Collecting and Interpreting Qualitative Materials*, pp. 179-210. Thousand Oaks, CA: Sage Publications.

Assignment for Session 12:

- ◆ Conduct factor analyses and produce reliability statistics for the operational version of your construct using the complete survey data set as soon as all the data are entered and verified. Post this measurement information to the Blackboard site. Present your analysis clearly and completely so that the other groups will easily be able to use your constructs and multi-item scales (properly attributed) in their analyses.

Learning Points for Session 12:

- 1) Review construction and analysis of multi-item scales if necessary
- 2) Case studies and field work

SESSION 13 (12/9): INTERPRETIVE METHODS

Readings for Session 13:

- ◆ Phillips, Nelson and John L. Brown (1993), “Analyzing communication in and around organizations: a critical hermeneutic approach.” *Academy of Management Journal* 36: 1547-1576.
- ◆ Optional:
 - Manning, P.K. and B. Cullum-Swan (1998), “Narrative, content, and semiotic analysis.” In Norman K. Denzin and Yvonna S. Lincoln (eds), *Collecting and Interpreting Qualitative Materials*, pp. 246-274.

Assignment for session 13:

- ◆ Work on questionnaire study

Learning Points for Session 13:

- 1) Understanding and evaluating interpretive research

SESSION 14 (12/16): REVIEW; SYNTHESIS; THE FUTURE

Readings for Session 14:

- ◆ Review HHJ, chapters 1-3
- ◆ Farley, J.U., D.R. Lehmann, and M. Ryan (1981), “Generalizing from ‘Imperfect’ Replication.” *Journal of Business* 54: 597-610.

Student assignment for session 14:

- ◆ Turn in write up of questionnaire study

Learning Points:

- 1) Meta-analysis
- 2) Reprise on the process of science
- 3) Other methods courses throughout the university
- 4) Interesting data within the Stern School
- 5) Course evaluations
- 6) Party

ASSIGNMENT 1: FIELD OBSERVATION STUDY

Behavioral research depends upon carefully observing human behavior and creating and testing explanations for that behavior. Your first assignment requires you to observe human behavior in an organized social context and to create explanations of that behavior.

1. Spend a minimum of two consecutive hours observing behavior in a setting where people eat. You may choose any setting you wish that is convenient for you and will not disrupt the people you are observing.
2. Prepare a brief paper (3-5 pages) in which you
 - a) Describe what you saw.
 - b) Offer an explanation of some aspect of people’s behavior that you saw.

Email your paper to the instructors at least 48 hours before the first class.