

UNC-CH INLS 780 – Spring 2014  
Research Methods  
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Brief Description

Almost all the material in Babbie will be covered, with a disproportionate emphasis on materials students often find most difficult to learn from the book, such as notions of validation, basic statistics (much of which is not in Babbie), etc.

My personal goal as the instructor is to increase the *leadership skills* in SILS Masters students by teaching them to recognize questions in the students' professional domains whose answers could improve professional practice; to learn methods for gathering original data to increase knowledge about the domain and the answer; and to learn analytic methods that allow one to answer questions and determine the degree of confidence one can have in the answer and the scope of the answer's applicability.

Text

Babbie, Earl, *The Practice of Social Research*, 13<sup>th</sup> edition, Thomson 2012. (in Bookstore). Using the 12<sup>th</sup> edition is acceptable.

Outline and Readings  
(Readings preceded by "\*" are optional)

**Introduction: Research and its Applications.**

Babbie, Chapter 1

- \* Ben-Ari, M. *Just a Theory: Exploring the Nature of Science*. Prometheus, 2005.
- \* Brockman, J. (editor) *What We Believe But Cannot Prove*, Harper, 2006.
- \* Carruthers, P., Stich, S., and Siegal, M. *The Cognitive Basis of Science*, Cambridge, 2002.
- \* Eldredge, J. "Inventory of Research Methods for Librarianship and Informatics" *J. of Medical Library Association* 92(1) January 2004.
- \* Fuller, S. *Kuhn vs. Popper: The Struggle for the Soul of Science*, Columbia U., 2004.
- \* Gilbert, D. *Stumbling on Happiness*, Vintage, 2007.
- \* Gladwell, Malcolm. "Something Borrowed: Is it Fair to Complain about Plagiarism?" *New Yorker*, Nov 22, 2004, pp. 40-48. (Available through Davis Electronic Journals.)
- \* Hermanowicz, J. *Lives in Science: How Institutions Affect Academic Careers*, U. of Chicago, 2009.
- \* Hoyningen-Huene, P. *Systematicity: The Nature of Science*, Oxford U. Press, 2013.

- \* Losee, R. [Information From Processes: About the Nature of Information Creation, Use, and Representation](#), Springer, 2012.
- \* Madigan, R., Johnson, S. and Linton, P. "The Language of Psychology: APA Style as Epistemology," 50, *American Psychologist*, (1995) 428-436.
- \* Manzi, J. *Uncontrolled: The Surprising Payoff of Trial-and-Error for Business, Politics, and Society*. Basic Books, 2012.
- \* Schmidt, M. and Lipson, H. "Distilling Free-Form Natural Laws from Experimental Data," 324, *Science*, (April 2009) 81-85.
- \* [Sage Research Methods Online](#). Available through Davis Library.
- \* Stricker, G. "Are Science and Practice Commensurable?" *American Psychologist* 52 (April 1997) 442-448.
- \* White, C. *The Science Delusion*. Melville House Pub., 2013.
- \* Wildemuth, B. *Applications of Social Research Methods to Questions in Library and Information Science*. Libraries Unlimited, 2009.

### **Social Psychology of Research**

Babbie, Chapters 1-3.

- \* Kassin, S. "On the Psychology of Confessions," *American Psychologist*, 60 (April 2005), 215-228.
- \* Milgram, S. *Obedience to Authority*, Harper & Row, 1974.

### **Research Design and Topics**

Babbie, Chapter 4

- \* UNC Institutional Review Board, Behavioral IRB, <http://research.unc.edu/ohre>

### **Conceptualization, Measurement, Operationalization, and Variables**

Babbie, Chapters 4-5

- \* Elliott and Holt, *Measuring Your Library's Value*, ALA, 2009. Paperback \$62.
- \* Matthews, J. *The Evaluation and Measurement of Library Service*. Libraries Unlimited, 2007. Paperback \$50.

### **Questions**

Babbie, Chapters 6 (Indexes and Scales) & 9 (Surveys)

- \* Fink, A. *How to Conduct Surveys: A Step-By-Step Guide*. Sage Publications, 2006.
- \* Kvale, S. *InterViews: Learning the Craft of Qualitative Research Interviewing*. Sage Publishing, 2009.

\* Levav and Fitzsimons "When Questions Change Behavior" *Psychological Science* 17 (2006) 207-213.

\* Lewontin, R. "Sex, Lies and Social Science," *New York Review of Books* XLII (April 20, 1995), 24-29.

\* Moore, D., *The Opinion Makers: An Insider Exposes the Truth Behind the Polls*, Beacon Press, 2008.

\* Rubin, H. *Qualitative Interviewing: The Art of Hearing Data*, Second Edition. Sage Publications, 2005.

## **Sampling**

Babbie, Chapter 7

\* DiCarlo, M. and Maxfield, M. "Sequential Analysis as a Sampling Test for Inventory Need," *J. of Academic Librarianship* 13 (Jan. 1988), 345-348.

\* Lohr, S. *Sampling: Design and Analysis*. Brooks/Cole, 2010.

## **Experiments**

Babbie, Chapter 8 (Experiments) & 12 (Evaluation Research)

Kong J, Spaeth R, Cook A, Kirsch I, Claggett B, et al. (2013) Are All Placebo Effects Equal? Placebo Pills, Sham Acupuncture, Cue Conditioning and Their Association. *PLoS ONE* 8(7): e67485. <http://dx.doi.org/10.1371/journal.pone.0067485>

\* Koufogiannakis, C. and Crumley, E. "Research in Librarianship: Issues to Consider" *Library Hi Tech*, 2006, 24(3), pp. 324-340.

\* Lehrer, J. "The Truth Wears Off: Is There Something Wrong with the Scientific Method?" [The New Yorker, Dec 13, 2010. pp. 52-57.](#)

\* Lyubomirsky, S. "Why Are Some People Happier Than Others," *American Psychologist*, March 2001, pp 239-249. More recent is her *The How of Happiness*, Penguin, 2008.

## **Qualitative Research**

Babbie, Chapters 10 (Qualitative Research) & 13 (Qual. Data Analysis)

\* Creswell, John. Any of his work on mixed methods published by Sage.

\* Myers, M. and Newman, M. "[The Qualitative Interview in IS Research: Examining the Craft](#)," *Information and Organization*, 17 (1) 2007, pp 2-26.

\* Hesse-Biber, S. *The Practice of Qualitative Research*, Sage, 2011.

\* Silverman, D. *Qualitative Research*, Third Edition, Sage, 2010.

\* Thornton, S. *Seven Days in the Art World*, Norton, 2009.

## **Unobtrusive Research**

Babbie, Chapter 11

\* Rimland, E. L., "Do We Do It (Good) Well? A Bibliographic Essay on the Evaluation of Reference Effectiveness," *The Reference Librarian* 2007. 47(2) pp 41-55.

\* Webb, E. et al. *Unobtrusive Measures*, Revised Edition, Sage, 2000.

## **Content Analysis**

\* Krippendorff, K. *Content Analysis*, Sage, 2013.

## **Modeling and Simulation**

\* McCullagh, P. "What is a Statistical Model?" *The Annals of Statistics* 30 (2002) 1225-1310.

\* Yip, S. *Scientific Modeling and Simulations*, Springer, 2009.

## **General Analysis of Data**

Babbie, Chapters 14, 16.

\* Bender, P. M. "Can Scientifically Useful Hypotheses Be Tested with Correlations?" *American Psychologist* 62 (2007) 772-782.

\* Berger, J.O. "Could Fisher, Jeffreys and Neyman Have Agreed on Testing" *Statistical Science* 18:1 (2003) 1-32.

\* Byrne, G. "A Statistical Primer: Understanding Descriptive and Inferential Statistics" *Evidence Based Library and Information Practice* 2:1 (2007) 32-47.

\* Hubbard, D. *How to Measure Anything, 2<sup>nd</sup> Edition*, Wiley, 2010.

\* Krueger, J. "Null Hypothesis Significance Testing: On the Survival of a Flawed Method," *American Psychologist* 56 (1) (2001) 16-26

\* Newton, R. *Your Statistical Consultant: Answers to Your Data Analysis Questions*, Sage, 2013.

\* JMP website <http://JMP.com>

\* Sall, J., Lehman, A., Stephens, M., Creighton, L. *JMP Start Statistics: A Guide to Statistic and Data Analysis Using JMP. Fifth Edition* (2012). A good survey of social science statistics and JMP. Not required for the course, but if you want to know much more than we cover in this class about statistics and how to use JMP, this is a good place to start.

The latest version of JMP can be obtained through <http://its.unc.edu> or <http://software.unc.edu/> . If you wish to run it through the university virtual lab, go to <http://virtuallab.unc.edu> (a support web page is at <http://help.unc.edu/help/how-do-i-log-on-to-virtual-lab/> )

## Evaluation

Class participation 30%,

Test 40% (Last class, **Wednesday April 23**),

Submitted Assignments 30%.

(Late assignments will result in a considerably lower grade for the assignment)

## Research Proposal for Master's Papers

Proposals must be submitted on paper. Students are recommended to read the following few pages of the syllabus several times.

### Professional Research

Students are free to choose a research hypothesis within the broad area of library and information science whose answer will result in better service to patrons across a range of organizations. The focus of this course is on practitioner-oriented research; using the answer to the student's hypothesis should result in improved operation and management of information systems like that studied, and an increased understanding of performance issues. A descriptive study of the circulation habits of faculty teaching research methodology courses is very weak; better studies might show that modifying the circulation policy in a certain way increases the use of the collection by research methods faculty, or that the availability of research related materials would be improved. For professionals, knowing that a problem exists isn't half as helpful as knowing that one solution is superior to another. **Try to propose something constructive.** Students should minimize collecting information or using variables not having a bearing on the outcome of their study. As a rule of thumb, just building something is not acceptable; analysis of the *type* of system or procedure is almost always required. If all you discuss is a single product or group of people or "thing," you are missing a basic functionality; you may not be proposing research if your hypothesis contains proper nouns. Gathering information solely to allow a single manager to make a decision isn't research. Research should produce generalizations that can be either applied directly to practice in the field or to further theoretical development.

### Research Proposal

Each student will develop a short research proposal to be handed in on paper by **the start of class Wednesday April 23**. Late proposals will be penalized. Note that the requirements and standards for this research hypothesis and proposal *will likely differ from those of your advisor* in many respects; everybody in this class will be held to the same professional standards. Your course proposal should argue for the utility for a group of people of modifying the outcome variable and the likelihood of the causal variable you are proposing improving the outcome variable you are suggesting. The proposal will contain the following sections with approximate lengths (double or 1.5 spaced) as given:

1 page	Introduction to problem (including a clear statement of the research hypothesis, which should be in italics)
2-6 pages	Brief prose literature review. Emphasize relationship

	between problem, literature, methodology, and possible solutions. This should be a prose presentation and argument. Literature should fully discuss how to study the outcome variable.
3-6 pages	Precise statement of methodology & analytic techniques. Include operational definitions (in prose)
0 to 2 pages	Limitations of this study (weakness of data, methodology, analysis)
½ to 2 pages	Expected results, and significance of the work. Indicate who it will <i>directly</i> benefit. How a “yes” answer to the hypothesis would be used by professionals, and how a “no” answer should be used, should be provided. To what libraries or information systems might your results be generalized? If possible, include a statement of “best practice” that you hope to be able to support or defend.
¼ to 1 page	Qualifications. What special background or access will make this study successful? What experience do you and your probable advisor have in this area?
½ to 1 page	Summary.
5 to 10 lines	Project Schedule

Proposals should be a maximum of 14 pages, double spaced, excluding support material such as sample cover letters, surveys, etc.

The project schedule should provide both (1) expected completion dates and (2) worst-case completion dates for all major stages in the project, possibly including the completion of the literature review, design of questionnaire, Human Subject Committee review, data collection, data analysis, completion of the rough draft, etc. Most faculty members expect a draft of the masters paper two weeks before the final due date for the finished copy.

The proposal does not commit you to using this research hypothesis. If you believe you will be doing a project which is not research based as your master’s paper or project, you still need to develop a proposal based upon a research hypothesis that involves data gathering and analysis, and you will need to show how the results can be applied outside the environment where the data was gathered. If you don’t think your research will result in the kind of knowledge that might be presented in a SILS class by the instructor or published in an LIS journal, you need to consider another research hypothesis.

The literature review should be organized topically and should not be organized by article. Find a broad way to functionally describe the question and bring in the literature from other disciplines that address this basic question.

## Honor Code

Students should familiarize themselves with the University of North Carolina at Chapel Hill Honor Code which is described in University publications. It should be noted that in this course, students are expected to receive (and provide) some assistance regarding the use of hardware and software in the computer laboratories and general problem solving techniques for the proposal and homework assignments. Students should NOT receive (or provide) major creative assistance or continuing minor support for projects.

**Plagiarism:** Student assignments that are handed in that contain more than 5 consecutive words that the instructor feels were taken from another source without proper attribution (without the proper quote marks and citations) *definitely will be referred* to the appropriate administrative authorities who address issues of Academic Integrity (e.g. the *Honor Court*). I assume that all students are equally likely to be honest and will put an equal amount of effort into considering the possibility of plagiarism for each student's paper. The UNC Library has a [tutorial](http://www.lib.unc.edu/plagiarism/) at <http://www.lib.unc.edu/plagiarism/>.

Separate from the Honor Code but related to respect for classmates is classroom behavior. Students are expected to behave in a professional manner in class. Students in class are expected to focus on classroom discussion and materials. Students are expected to avoid student-to-student conversations during class. Use of laptop computers should be limited to taking notes for class. Similarly, materials being read (on paper or electronically) should be limited to those appropriate for the classroom lecture or discussion. Students who appear to be involved in non-class related activities during class time will be graded as not participating in class. Cellular telephones and computers should have ringers and speakers muted so as to not disturb others.