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# INLS 581

## Research Methods Overview

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### Description

An introduction to research methods used in information and library science, exploring the design, interpretation, analysis and application of published research.

### Goals

I want us to have fun while exploring and learning about research methods. I hope you will gain an understanding of the concepts and terminology used in ILS research and of the methods used to perform this research. I have organized this course around published research (as opposed to a research methods textbook) to better acquaint you with different research specialties and approaches in ILS. I want to help you improve your abilities to consume research and also establish a foundation for you to do your own research in the future.

### Requirements

Reading, thinking, discussing, listening, researching and writing.

- You are expected to read the assigned readings by the dates listed on the schedule. This is a very reading-intensive course, so please schedule accordingly.
- You should have access to the readings during class.
- This is a small class so your participation is critical. Be prepared to ask questions and discuss the readings in class.
- Please let me know in advance if you will not be able to attend class.

### Evaluation

Your major assignments for this course include: Participation (30%), Mid-term Exam (25%), Research Reviews (20%) and Final Exam (25%).

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Fall 2013

[MW, 11:00-12:15]

Manning Hall, RM 307

Instructor: Diane Kelly, Ph.D.

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Phone: 919.962.8065

Office: Manning Hall, RM 10

Office Hours: by appointment

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### Materials

Readings will be placed in the Sakai site or you will need to obtain them from UNC Library's online collections.

We will read many chapters from:

Wildemuth, B. M. (2009). *Applications of Social Research Methods to Questions in Information and Library Science*. Libraries Unlimited: Westport, CT.

This book is available for purchase at UNC Book Stores and online. It is also on reserve in the SILS Library.

### Milestones

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**September 4, 2013**

Research Review.

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**October 30, 2013**

Mid-term Exam

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**November 25, 2013**

Last day to submit your second Research Review.

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**December 6, 2013 (Friday, Noon)**

Final Exam

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# Assignments

## Participation (30%)

You are an important part of this course. There are few things worse than teaching to a half-empty classroom. One thing worse than teaching to a half-empty classroom is teaching to a room full of people engaged in conversations with others or with their eyes glued to their computers! Because your presence is key to a successful class, your participation will be 'graded.' Your grade is based on several things: attendance, behavior, general participation, and reflective journaling.

- *Attendance.* You are expected to attend all classes and to arrive to class before it starts. You will lose participation points for excessive and unexcused absences and for arriving late to class. You should be seated and ready to start at 11:00 AM. *You can miss one day for any reason, no questions asked and without penalty.* After this, I will notice when you miss class.
- *Behavior.* Be courteous to your classmates and course instructor by not conversing with others during class lectures. Turn off cell phones, pagers, and other devices that might disrupt class. Use laptops and other devices to support current course activities only. Pay attention. Daydream infrequently.
- *General Participation.* Class participation consists of doing the following: being prepared for class, making observations about the readings, asking questions, taking notes and actively listening.
- *Reflective Journaling:* You will be asked to create a journal entry for each class period about the daily readings and subsequent class discussion. The journal entries will be private (only I will see them). Each journal entry should contain two parts. The first part should be done after you have finished the readings and before coming to class (Post-Reading Reflection). The second part should be completed after class discussions (Post-Class Reflection). Your journal entries should be printed and brought to class. Use the template provided at the end of this syllabus. Make sure you have access to this template during class; we might, on occasion, do the second part at the end of class. Your Post-Reading Reflections are due at the start of each class. Your Post-Class Reflections are due either at the start of the next class period or at the end of class (if we do them in class). If you are absent, you can still submit a Post-Reading Reflection if you have made prior arrangements with me, but it is not possible for you to submit a Post-Class Reflection.

## Mid-term and Final Exams (25% each)

Exams!?! Yeah, I know ... scary. But they don't have to be! It is important to me that you internalize some of the content of this class and exams are good assessment methods for evaluating knowledge of a range of topics and issues.

You will take the mid-term exam on your own time – I will make the exam available to you online during a specified window of time and you will have up to three hours to complete it once you open it. The Final Exam will be administered during class. It will be the same format as the mid-term exam, but you will take it at the same time in a predetermined location since we have a 3-hour block of time reserved for this purpose.

Exams will be closed-book and closed-note. The final exam will be cumulative and integrative. The format of the exam questions will be varied. I like open-ended questions; in particular, I like to present stimuli (for example, a passage from a piece of research) and ask you questions about the stimuli (for example, what type of sampling was used). You might also have a few multiple-choice questions and statistics problems to work.

## Research Reviews (10% each)

You will select two empirical research articles from the ILS literature to present, discuss and share in written and oral format. You will prepare two short reports (one for each article) of approximately 2 pages in length (single-spaced). In your report, you should start by describing the research: what was done, why it was done, how it was done, what was found. This should be a *neutral* description without any of your analysis. Then, discuss the research. (I hesitate to use the word 'critique' because sometimes people think that means to shred something!) Your discussion should be balanced, pointing out what you see as the strengths and weaknesses of the work. Once you've done this, you should upload your review to the designated directory in Sakai and send an email to the entire class (via Sakai) with the citation to the article and a 2-3 sentence summary of the article. Be prepared to spend about 2-3 minutes telling us about your review during class.

The first review is due on September 4. The second review is due on a rolling basis – do it when you want, but you submit it by November 25<sup>th</sup>. Presumably, your second review will be slightly more informed than your first since you will have had the benefit of class readings and discussions.

## Grading

Based on UNC Registrar Policy for graduate-level courses (<http://regweb.unc.edu/resources/rpm24.php>), both assignment and semester grades will be H, P, L or F. Few students will obtain an "H," which signifies an exceptionally high level of performance (higher than an "A" in an A-F systems). The following is a more detailed breakdown:

H	Superior work: complete command of subject, unusual depth, great creativity or originality
P+	Above average performance: solid work somewhat beyond what was required and good command of the material. Note: The university does not recognize this grade, but I use it for work that is better than P, but not quite at the level of H.
P	Satisfactory performance that meets course requirements (expected to be the median grade of all students in the course)
P-	Acceptable work in need of improvement
L	Unacceptable graduate performance: substandard in significant ways
F	Performance that is seriously deficient and unworthy of graduate credit

# Schedule

## August 21: Introductions and Course Overview

### August 26: Overview of Research; Research in Information and Library Science; Research Questions

- Neuman, W. L. (2005). *Social research methods: Qualitative and quantitative approaches (6<sup>th</sup> Edition)*. Allyn and Bacon Publishing [Ch. 1; parts of Ch. 2; boxes from Ch. 6]. **(Readings Directory)**
- Wildemuth, B. M. (2009). Applications of Social Research Methods to Questions in Information and Library Science. Libraries Unlimited: Westport, CT. [Chapter 2-6].

### August 28: No class: Diane in Finland

## September 2: No class: Labor Day

### September 4: Bibliometrics: An ILS Original!

- Osareh, F. (1996). Bibliometrics, citation analysis and co-citation analysis: A review of the literature I and II. *Libri*, 46, 149-158; 217-225. **(Readings Directory)**
- Lariviere, V., Sugimoto, C. R., & Cronin, B. (2012). A bibliometric chronicling of library and information science's first hundred years. *Journal of the American Society for Information Science & Technology*, 63(5), 997-1016. **(UNC Journals)**
- SKIM: White, H. D. & McCain, K. W. (1998). Visualizing a discipline: An author co-citation analysis of information science, 1972-1995. *Journal of the American Society for Information Science*, 49(4), 327-355. **(UNC Journals)**
- **Research Review Due**

### September 9: Theory

- Bates, M. J. (2005). An introduction to metatheories, theories and models (Ch. 1). In K. E. Fisher, S. Erdelez, & L. E. F. McKechnie's (Eds.) *Theories of Information Behavior*. ASIST Monograph Series, Information Today, Inc.: Medford, NJ. **(Readings Directory)**
- Kumasi, K. D., Charbonneau, D. H., & Walster, D. (2013). Theory talk in the library science scholarly literature: An exploratory analysis. *Library & Information Science Research*, 35, 175-180. **(UNC Journals)**

### September 11: Theory

- Connaway, L. S., Dickey, T. J., & Radford, M. L. (2011). "If it is too inconvenient I'm not going after it:" Convenience as a critical factor in information-seeking behaviors. *Library & Information Science Research*, 33, 179-190. **(UNC Journals)**
- Example Theory: Petty and Cacioppo's Elaboration Likelihood Theory **(Readings Directory)**

## September 16: Variables and Hypotheses

- Adler, R. F. & Benbunan-Fich, R. (2013). Self-interruptions in discretionary multitasking. *Computers in Human Behavior*, 29, 1441-1449. **(UNC Journals)**
- Neuman, W. L. (2005). *Social research methods: Qualitative and quantitative approaches (6<sup>th</sup> Edition)*. Allyn and Bacon Publishing, pgs. 160-166: The Language of Variables and Hypotheses. **(Readings Directory)**
- Salkind, N. J. (2010). Encyclopedia of Research Design. Sage Publications, Inc. **(Available online through UNC Libraries: <http://knowledge.sagepub.com/view/researchdesign/SAGE.xml>)**. Read the following entries:
  - Independent Variable
  - Dependent Variable
  - Confounding
- Sproull, N. (1988). *Handbook of Research Methods: A Guide for Practitioners in the Social Sciences* (pp. 27-35). Scarecrow Press. **(Readings Directory)**

## September 18: Variables and Hypotheses

- Salkind, N. J. (2010). Encyclopedia of Research Design. Sage Publications, Inc. Read the following entry:
  - Levels of Measurement

#### September 23: Literature Reviews, Research Synthesis and Meta-Analysis

- Salkind, N. J. (2010). Encyclopedia of Research Design. Sage Publications, Inc. Read the following entry:
  - Literature Review
- Hornbæk, K. (2006). Current practice in measuring usability: Challenges to usability studies and research. *International Journal of Human-Computer Studies*, 64, 79-102. **(UNC Journals)**

#### September 25: Descriptive Statistics

- Sugimoto, C.R., Tsou, A., Naslund, S., Hauser, A., Brandon, M., Winter, D., Behles, C., & Finlay, S.C. (forthcoming). Beyond gatekeepers of knowledge: Scholarly communication practices of academic librarians and archivists at ARL institutions. *College & Research Libraries*. Pre-print: <http://ella.slis.indiana.edu/~sugimoto/preprints/Beyondgatekeepersofknowledge.pdf>.
- Salkind, N. J. (2010). Encyclopedia of Research Design. Sage Publications, Inc. Read the following entry:
  - Statistic
- Wildemuth, B. M. (2009). Applications of Social Research Methods to Questions in Information and Library Science. Libraries Unlimited: Westport, CT. [Chapter 33-34].

#### September 30: Measurement, Scale Construction and Factor Analysis

- O'Brien, H. L. & Toms, E. G. (2010). The development and evaluation of a survey to measure user engagement. *Journal of the American Society for Information Science & Technology*, 61(1), 50-69. **(UNC Journals)**
- Spector, P. E. (1992). Summated rating scale construction: An introduction. Sage Publications, Inc. **(Available online through UNC Libraries: <http://srmo.sagepub.com/view/summated-rating-scale-construction/SAGE.xml?rskey=fgA7DU&row=1>)**
- Salkind, N. J. (2010). Encyclopedia of Measurement and Statistics. Sage Publications, Inc. [NOTE: different encyclopedia, same author!: <http://knowledge.sagepub.com/view/statistics/SAGE.xml?rskey=MICOQP&row=1>] Read the following entry:
  - Likert Scaling

#### October 2: Measurement, Scale Construction and Factor Analysis

#### October 7: Experimental Design

- Salkind, N. J. (2010). Encyclopedia of Research Design. Sage Publications, Inc. Read the following entry:
  - Experimental Design
- Wildemuth, B. M. (2009). *Applications of Social Research Methods to Questions in Information and Library Science*. Information Today (Ch. 11, 12).
- Cyr, D., Head, M., & Larios, H. (2010). Colour appeal in website design within and across cultures: A multi-method evaluation. *International Journal of Human-Computer Studies*, 68, 1-21. **(UNC Journals)**
- Kelly, D., Shah, C., Sugimoto, C. R., Bailey, E. W., Clemens, R. A., Irvine, A. K., Johnson, N. A., Ke, W., Oh, S., Poljakova, A., Rodriguez, M. A., van Noord, M. G., & Zhang, Y. (2008). Effects of performance feedback on users' evaluations of an interactive IR system. *Proceedings of the 2nd Symposium on Information Interaction in Context (IiX)*, London, UK, 75-82. **(ACM Digital Library)**

#### October 9: Quantitative Data Analysis

- Wildemuth, B. M. (2009). *Applications of Social Research Methods to Questions in Information and Library Science*. Libraries Unlimited: Westport, CT. [Chapter 36-37].
- Salkind, N. J. (2010). Encyclopedia of Research Design. Sage Publications, Inc. Read the following entry:
  - P-value
  - Degrees of Freedom

#### October 14: Log Studies and Quantitative Data Analysis

- Wildemuth, B. M. (2009). *Applications of Social Research Methods to Questions in Information and Library Science*. Information Today (Ch. 18).
- Dumais, S., Jeffries, R., Russell, D. M., Tang, D. & Teevan, J. (forthcoming). Understanding user behavior through log data and

analysis. J.S. Olson and W. Kellogg (Eds.), *Human Computer Interaction Ways of Knowing*. New York: Springer, 2014. **(Readings Directory)**

- Bateman, S., Teevan, J., & White, R. W. (2012). The search dashboard: How reflection and comparison impact search behavior. *Proceedings of the SIGCHI Conference on Human Factors in Computing Systems (CHI '12)*, Austin, TX, 1785-1794. **(ACM Digital Library)**

#### October 16: Log Studies and Quantitative Data Analysis

- McLaughlin, M., Goldberg, S. B., Ellison, N., & Lucas, J. (1999). Measuring Internet audiences: Patrons of an online art museum. In S. Jones *Doing Internet Research: Critical Issues and Methods for Examining the Net*. Sage Publications, Inc. (Available online through UNC Libraries: <http://knowledge.sagepub.com/view/doing-internet-research/n8.xml>).
- White, R. W. & Huang, J. (2010). Assessing the scenic route: Measuring the value of search trails in Web logs. *Proceedings of the ACM Conference on Research and Development in Information Retrieval (SIGIR '11)*, Geneva, Switzerland, 587-594. **(ACM Digital Library)**

#### October 21: Sampling for Quantitative Studies

- Wildemuth, B. M. (2009). *Applications of Social Research Methods to Questions in Information and Library Science*. Information Today (Ch. 13).
- Salkind, N. J. (2010). *Encyclopedia of Research Design*. Sage Publications, Inc. Read the following entry:
  - Sampling
  - Sample Size Planning
  - Sample Size
  - Effect Size, Measures of

#### October 23: Sampling Issue: "Crowdsourcing" and Automatic Classification

- Sood, S. O., Antin, J., & Churchill, E. F. (2012). Profanity use in online communities. *Proceedings of the SIGCHI Conference on Human Factors in Computing Systems (CHI '12)*, Austin, TX, 1481-1490. **(ACM Digital Library)**
- Amazon Mechanical Turk. Wikipedia entry: [http://en.wikipedia.org/wiki/Amazon\\_Mechanical\\_Turk](http://en.wikipedia.org/wiki/Amazon_Mechanical_Turk)
- Ross, J., Zaldivar, A., Irani, L., Tomlinson, B., & Silberman, M. S. (2010). Who are the Crowdworkers? Shifting demographics in Mechanical Turk. *Proceedings of the ACM SIGCHI Conference on Human Factors in Computing Systems (CHI '10) Extended Abstracts*, Atlanta, GA, 2863-2872. **(ACM Digital Library)**

October 28: No class: Diane in Germany

October 30: No class: Diane in Germany

- **Mid-Term Exam**

#### November 4: Surveys

- Wildemuth, B. M. (2009). *Applications of Social Research Methods to Questions in Information and Library Science*. Information Today (Ch. 26).
- Dillman, D. A., Smyth, J. D., & Christian, L. M. (2009). *Internet, Mail and Mixed-Mode Surveys* (3<sup>rd</sup> Edition). John Wiley & Sons, Inc.: Hoboken, NJ. Chapters 1, 3-5. **(Readings Directory)**

#### November 6: Surveys and Social Network Analysis

- Hampton, K. N., Sessions, L. F., & Her, E. J. (2011). Core networks, social isolation and new media. *Information, Communication & Society*, 14(1), 130-155. Available online: <http://www.tandfonline.com/doi/full/10.1080/1369118X.2010.513417>
- Review the survey questions and full report, pay close attention to material in the full report related to the Method: Hampton, K., Goulet, L. S., Her, E. J., & Rainie, L. (2009). *Social Isolation and New Technology*. Pew Internet & American Life Project. <http://pewinternet.org/Reports/2009/18--Social-Isolation-and-New-Technology.aspx>
- Garton, L., Haythornthwaite, C., & Wellman, B. (1999). Chapter 4: Studying online social networks. In S. Jones *Doing Internet Research: Critical Issues and Methods for Examining the Net*. Sage Publications, Inc. (Available online through UNC Libraries: <http://knowledge.sagepub.com/view/doing-internet-research/n4.xml>).

November 11: Interviews

- Wildemuth, B. M. (2009). *Applications of Social Research Methods to Questions in Information and Library Science*. Information Today (Ch. 24).
- St. Jean, B. (forthcoming). Participant reactivity in a longitudinal mixed-method study of the information behavior of people with Type 2 diabetes: Research validity vs. "Street Validity." To appear at the *ASIST 2013 Conference*, Montreal, Quebec, Canada. **(Readings Directory)**

November 13: Focus Group Interviews

- Wildemuth, B. M. (2009). *Applications of Social Research Methods to Questions in Information and Library Science*. Information Today (Ch. 25).
- Agosto, D. E. (2002). Bounded rationality and satisficing in young people's web-based decision making. *Journal of the American Society for Information Science & Technology*, 53(1), 16-27. **(UNC Journals)**

November 18: Interview Design & Sampling

- Rubin, H. J., & Rubin, I. S. (2005). Structuring the interview. In *Qualitative Interviewing: The Art of Hearing Data (2nd. ed.)*, (Ch. 7). **(Readings Directory)**
- Wildemuth, B. M. (2009). *Applications of Social Research Methods to Questions in Information and Library Science*. Information Today (Chs. 14 & 15).
- Beitin, B. K. (2012). Interview and sampling: How many and whom. In J. F. Gubrium, J. A. Holstein, A. B. Marvasti, & K. D. McKinney (Eds.) *The SAGE Handbook of Interview Research: The Complexity of the Craft*. Sage Publications, Inc. (Available online through UNC Libraries: [http://knowledge.sagepub.com/view/hdbk\\_interviewresearch2ed/n17.xml](http://knowledge.sagepub.com/view/hdbk_interviewresearch2ed/n17.xml)).

November 20: Qualitative Data Analysis

- Wildemuth, B. M. (2009). *Applications of Social Research Methods to Questions in Information and Library Science*. Information Today (Ch. 30).
- Rubin, H. J., & Rubin, I. S. (2005). The first phase of analysis. In *Qualitative Interviewing: The Art of Hearing Data (2nd. ed.)*, (Ch. 10). **(Readings Directory)**
- Rubin, H. J., & Rubin, I. S. (2005). Analyzing coded data. In *Qualitative Interviewing: The Art of Hearing Data (2nd. ed.)*, (Ch. 11). **(Readings Directory)**

November 25: "Ethnography," Diaries and Experience Sampling

- Mizrahi, D. & Bates, M. J. (2013). Undergraduates' personal academic information management and the consideration of time and task-urgency. *Journal of the American Society for Information Science & Technology*, 64(8), 1590-1607.
- Wildemuth, B. M. (2009). *Applications of Social Research Methods to Questions in Information and Library Science*. Information Today (Ch. 22).
- Larson, R. & Csikszentmihalyi, M. (1983). The experience sampling method. In H. T. Reis (Ed.) *Naturalistic Approaches to Studying Social Interaction*, (pp. 41-56). San Francisco: Jossey-Bass. **(Readings Directory)**
- **Second Research Review Due**

November 27: No class: Thanksgiving Holiday

December 2: Ethics

- Neuman, W. L. (2005). *Social research methods: Qualitative and quantitative approaches (6<sup>th</sup> Edition)*. Allyn and Bacon Publishing (Ch. 5, pgs. 129-147). **(Readings Directory)**
- Williams, P., Block, L. G., & Fitzsimons, G. J. (2006). Simply asking questions about health behaviors increases both healthy and unhealthy behaviors. *Social Influence*, 1(2), 117-127. **(Reading Directory)**

December 4: Wrap-up

December 6: Final Exam: 12:00-3:00 PM

## Journal Page

Name: \_\_\_\_\_

**Post-Reading Reflection**      **Date:**

**What stood out for you? What did you learn?**

**What questions do you have? What connections did you make?**

**What can you conclude?**



## Journal Page

Name: \_\_\_\_\_

**Post-Class Reflection**      **Date:**

**How has your thinking changed after class? What did you learn in class?**

**What questions do you still have? Do you have any new questions?**

**What are some possible applications of this research or research method to the information professions?**