

Research Principles and Analysis | GLIS 611-002
Winter 2014
Prof. Karyn Moffatt

DISCLAIMER: This syllabus is provided for informational use only. Content and assignments may change before the start of the course and may differ between course sections. Students enrolled in this course are to retrieve the official version from the McGill course management site.

Course Description

Fundamental aspects of reflective thinking and the methods and techniques of research appropriate to the investigation of library/information problems. Criteria helpful in evaluating published research in library/information studies by analyzing the various steps of the research process, thereby providing guidelines for planning, conducting, and reporting research.

Learning outcomes

- Promote critical thinking about research in library and information studies (LIS).
- Identify the various stages of the research process.
- Enable students to understand and evaluate published research.
- Understand quantitative and qualitative research methods used in LIS.
- Provide guidelines on planning, conducting, and reporting research.

Course content

- Foundations of research: theories, observation, assumptions, limitations, and ethics.
- Steps in the research process: select topic, focus question, design study, and collect, analyze and interpret data.
- Research principles in quantitative and qualitative research: hypothesis, variables, measurements, validity, and reliability.
- Quantitative approach
 - Methods: experimental design, sampling selection, measurements.
 - Analysis: descriptive statistics, hypothesis testing and basic inferential statistics, interpretation.
- Qualitative approach
 - Methods: case studies, field research, ethnography, grounded theory.
 - Analysis: coding data, success approximation, contingency, and interpretation.
- Communicating research: the research proposal, research report, and publication process.

Instructional method

Lectures, guest lectures, class and small group discussions, and student presentations.

Required text

Wildemuth, N. M. (2009). *Application of social research methods to questions in Information and Library Science*. Westport, CT: Library Unlimited.

Suggested texts

- Salkind, N. J. (2011). *Statistics for people who (think they) hate statistics*. (4th ed.) Thousand Oaks, CA: Sage.
- Zinsser, W. (1988). *On writing well: The classic guide to writing nonfiction* (6th ed.). New York, NY: Harper.
- American Psychological Association (2010). *Publication manual of the American Psychological Association* (6th ed.). Washington, DC: Author.

Evaluation

- **Quizzes (20%)**
 - Q1: Feb 4 10%
 - Q2: Mar 18 10%
- **Assignments (20%)**
 - A1: Mini-literature review (Jan 28) 10%
 - A2: Evaluation of a research article (Mar 25) 10%
- **Group Project (50%)**
 - P0a: Group Formation (Jan 21) 0%
 - P0b: Group Contract (Feb 4) 0%
 - P1: Literature Review (Feb 25) 15%
 - P2: Oral presentation (Apr 1) 5%
 - P3: Written proposal (Apr 8) 25%
 - P4: Peer Evaluation (Apr 8) 5%
- **Class activities (10%)**
 - Regular participation in class activities 10%

No extensions, delays, or late assignments will be accepted unless a physician's certificate is provided.

Email Policy

Given the quantity of email I receive, I rely heavily on filters to ensure that important emails are easily accessible and prominent, and less important notices, reminders, and listserv messages do not overwhelm my day. Emails that end up in my generic "read later" folder may not get read for over a week. To ensure that your emails are properly filed for prompt reading, be sure to include [611] in the subject line of your email. If you send your email from mycourses the subject line will be correctly annotated for you.

Questions of a non-confidential nature (e.g., clarification on assignments, quizzes, or course content) should be submitted to the discussion group. Typically many students have the same question and everyone benefits from seeing the questions and answers. Using the discussion board not only reduces the number of emails I must manage (which indirectly helps you by freeing up my time to better respond to your questions), but also benefits the students in the class who are more shy and do not as readily seek out help.

Note that it is my policy to not read or respond to work related emails over the weekend. Please consider this when preparing for assignments and quizzes.

McGill Policy Statements

McGill University values academic integrity. Therefore, all students must understand the meaning and consequences of cheating, plagiarism, and other academic offences under the Code of Student Conduct and Disciplinary Procedures (see www.mcgill.ca/students/srr/honest/ for more information).

L'université McGill attache une haute importance à l'honnêteté académique. Il incombe par conséquent à tous les étudiants de comprendre ce que l'on entend par tricherie, plagiat et autres infractions académiques, ainsi que les conséquences que peuvent avoir de telles actions, selon le Code de conduite de l'étudiant et des procédures disciplinaires (pour de plus amples renseignements, veuillez consulter le site www.mcgill.ca/students/srr/honest/).

In accord with McGill University's Charter of Students' Rights, students in this course have the right to submit in English or in French any written work that is to be graded.

Conformément à la Charte des droits de l'étudiant de l'Université McGill, chaque étudiant a le droit de soumettre en français ou en anglais tout travail écrit devant être noté.

If you have a disability please contact the instructor to arrange a time to discuss your situation. It would be helpful if you contact the Office for Students with Disabilities at 514-398-6009 before you do this.

Additional policies governing academic issues, which affect students, can be found in the McGill Charter of Students' Rights (The Handbook on Student Rights and Responsibilities is available at www.mcgill.ca/files/secretariat/Handbook-on-Student-Rights-and-Responsibilities-2010.pdf).

Acknowledgement

This syllabus was originally created by Prof. Catherine Guastavino with additions by Prof. Carolyn Hank and others. Thanks to Prof. Guastavino for providing access to this syllabus and the accompanying teaching materials and for permitting me to make use of them.

Work assignments

Assignments and Group Project

Instructions outlining the deliverables and milestones necessary for the assignments and project will be posted on mycourses in the coming weeks.

Quizzes (February 4th and March 18th)

We will be having two quizzes in lieu of a mid-term. The quizzes will take place on January 28th and March 25th, from 2:35 to 3:15pm. They will be open-book and consist of multiple choice and/or short questions on the material covered in class (lectures, guest lectures, activities) and the readings. Each quiz is worth 10% of your grade.

Class Activities (On-Going)

Students are expected to participate in class discussions and in-class activities. The purpose of the discussions and activities is to help students to think critically about research and its impact on the field and to address ways that the literature may affect practice.

You are expected to:

- Be considerate of your classmates by arriving to class on time, with cell phones turned *off* for the duration of the class period.
- Additionally, be considerate of your classmates by informing the instructor of any planned absences.
- Be prepared for each class by completing the assigned readings, enabling you to ask questions and participate in class discussions and activities.
- Be an active and positive participant in class, characterized as:
 - Having a clear command of the readings for the day;
 - Sharing analyses and opinions based on the readings;
 - Allowing other students the opportunity to participate; and
 - Freely agreeing and disagreeing with others when warranted.

Please note: An intellectual exchange of ideas is the cornerstone of education, but any criticism should be limited to an idea and not the person specifically.

Throughout the term you will be asked to hand in the outputs for a number of in-class activities. In addition, attendance will be taken at the guest lecture on February 18th (to be confirmed) and the final project presentation on April 1st. You will receive 1% for each of these (up to a maximum of 10%).

Detailed Outline

Week	Details
	Course Overview
Week 1: Jan 7	<p>Objectives: Identify course objectives, topics, readings, and expectations Define science & describe its norms, assumptions, & process</p> <p>Readings: O'Connor, D., & Park, S. (2002). Research methods as essential knowledge. <i>American Libraries</i>, 33(1): 50.</p> <p>Notes: In-class activity: Introductory survey (individual)</p>
	Examining literature & identifying research questions
Week 2: Jan 14	<p>Objectives: Describe the role, purpose, & process of the literature review Discuss the attributes of good review, and how the literature review leads to the development of a research question Identify the qualities of a good research question</p> <p>Readings: Wildemuth, chapters 1, 2, 3, 4. Levy, Y., & Ellis, T. J. (2006). A systems approach to conduct an effective literature review in support of information systems research. <i>Informing Science Journal</i>, 9, 191-212.</p> <p>Notes: In-class activity: Literature reviews (small groups)</p>
	Qualitative and Quantitative Orientations to Research
Week 3: Jan 21	<p>Objectives: Compare qualitative and quantitative research orientations Discuss considerations for designing qualitative and quantitative studies</p> <p>Readings: Wildemuth, chapters 5, 6. Raven, M. (2012). Bridging the Gap: Understanding the Differing Research Expectations of First-Year Students and Professor. <i>Evidence Based Library and Information Practice</i>, 7(3): 4–31.</p> <p><i>Optional: Salkind, chapter 1, 2</i></p> <p>Notes: Due by 4pm: P0a – Group formation (on MyCourses) In-class activity: Evaluating an article I (small groups + class disc.)</p>
	Exploratory and Descriptive Research Methods
Week 4: Jan 28	<p>Objectives: Explore how different qualitative, quantitative, and mixed approaches are applied to answer explanatory and descriptive research questions Define and discuss concepts related to quantitative and qualitative measurement, identifying different types of measurement and discussing when they should be applied</p> <p>Readings: Wildemuth, chapters 7, 8, 9.</p> <p>Notes: Due at start of class: Mini literature review assignment In-class activity: Defining your research question (project teams)</p>

Sampling, Recruitment, and Research Ethics	
Week 5: Feb 4	<p>Objectives: Describe and compare different approaches to sampling, identifying the conditions for properly using each approach Discuss issues pertaining to participant recruitment, and examine the process and purpose of human-subjects ethics review</p> <p>Readings: Wildemuth, chapters 13,14 Carlin A.P. (2003). Disciplinary debates and bases of interdisciplinary studies: The place of research ethics in LIS. <i>Library & Information Science Research</i>, 25(1), 3-18.</p> <p>Notes: Due by 4pm: P0b – Group work contract (on mycourses) Quiz 1 of 2 to be administered at the start of class (2:35 pm)</p>
Survey Research	
Week 6: Feb 11	<p>Objectives: Describe the steps in conducting a survey, and identify principles for constructing good survey questions Discuss different survey delivery mechanisms and when to use them</p> <p>Readings: Wildemuth, chapters 24, 26, 27. <i>Optional: Salkind, chapter 4.</i></p> <p>Notes: In-class activity: Survey design (small groups)</p>
Non-Participant Methods and Historical Research	
Week 7: Feb 18	<p>Objectives: Introduce methods for conducting research which do not require human subjects participation Introduce historical research methods and their application</p> <p>Readings: Wildemuth, chapters 16, 17, 18. McNally, P.F. (1987). Identical cousins; Richard Pennington and David Peterley: The story of Peterley Harvest. <i>Papers of the Bibliographical Society of Canada</i>, 26, 66-87. (Available on mycourses)</p> <p>Notes: <i>Prof. Moffatt away</i> Guest Lectures: TBA (Non-participant methods); Prof. Peter McNally and Dr. Jillian Tomm (Historical Research)</p>
Qualitative Interviewing and Field Research	
Week 8: Feb 25	<p>Objectives: Describe the process of qualitative interviewing, distinguishing it from focus groups and discussing the benefits of each Introduce field research and the different steps for conducting it</p> <p>Readings: Wildemuth, chapters 20, 21, 23.</p> <p>Notes: Due at start of class: P1 – Literature Review In-class activity: Interview guide questions (small groups)</p>
Reading week – No class Tuesday March 4	

Analysis of Exploratory and Descriptive Research Data	
Week 9: Mar 11	<p>Describe the differences and similarities between qualitative and quantitative analysis techniques</p> <p>Objectives: Describe the process of analyzing qualitative data, identifying different analytical strategies</p> <p>Discuss the role of descriptive statistics, examining how they can be used to understand research data</p> <hr/> <p>Wildemuth, chapters 29, 30, 33, 34.</p> <p>Yu, B-M., & Roh, S-Z. (2002). The effects of menu design on information seeking performance and user's attitude on the World Wide Web. <i>Journal of the American Society for Information Science and Technology</i>, 53(11), 923-933.</p> <hr/> <p><i>Optional: Salkind, chapter 3.</i></p> <hr/> <p>Notes: In-class activity: Evaluating an article II (small groups and class disc)</p>
True, Quasi, and Pre Experimental Designs	
Week 10: Mar 18	<p>Define the language of explanatory research methods, comparing them to the exploratory and descriptive equivalents</p> <p>Objectives: Examine considerations for conducting experimental research</p> <hr/> <p>Readings: Wildemuth, chapters 11, 12.</p> <hr/> <p>Notes: Quiz 2 of 2 to be administered at the start of class (2:35 pm)</p>
Analysis of Explanatory Research Data	
Week 11: Mar 25	<p>Introduce the concept of inferential statistics and describe its role in producing explanatory evidence</p> <p>Objectives: Discuss how inferential statistics are interpreted, and examine appropriate and inappropriate contexts for their use</p> <hr/> <p>Readings: Wildemuth, chapters 36, 37.</p> <hr/> <p><i>Optional: Salkind, chapter 7, 8, 9, 10</i></p> <hr/> <p>Notes: Due at start of class: Assignment 2 – Evaluation of a research article In-class activity: Statistical analysis (small groups)</p>
Group Presentations and Class Wrap-Up	
Week 12: Apr 1	<p>Gain experience orally presenting research, while exploring each other's projects</p> <p>Objectives: Review the research process (as time allows)</p> <hr/> <p>Readings: Review readings relevant to group project</p> <hr/> <p>Notes: Due in class: P2 – Group Presentation</p>
P3 – Research Proposal & P4 – Peer Evaluations Due – Monday Apr 8 (by 4pm)	