IRLS506 Research Methods (Heidorn)

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COURSE NAME, NUMBER AND PREREQUISITES:

IRLS 506

Research Methods

This course is a core course for the SIRLS Masters degree. [Prerequisite: IRLS 504.]

Instructor: P. Bryan Heidorn

COURSE DESCRIPTION:

General overview

"Research is fundamentally a state of mind involving continual re-examination of the doctrines and axioms upon which current thought and action are based. It is, therefore, critical of existing practices." Theobald Smith, 1929

"The maddening thing about research was that most answers just meant more questions...." Corian Trevanni, Wintermind, Marvin Kaye and Parke Godwin, 1982

Research is the process of offering conjectures to solve problems, and of the testing, and sometimes refuting, of those conjectures. It is a process of theory building and hypothesis testing--the sifting and winnowing of ideas that leads to new knowledge, and new interpretations of old knowledge. It is a search for truth. And what it achieves are views that might reasonably be believed to be the truth, in the light of the evidence and the critical dialog.

Research is a term that is used casually to cover everything from poking around in an encyclopaedia to rigorous experiments using control groups and sophisticated statistical techniques. There is, in fact, a continuum that encompasses both these examples. For this class, however, we are going to settle somewhere at the middle of the continuum. Research is not just looking in an encyclopedia or in a library. This course aims at what might be described as mainstream social science research as practiced in universities.

No one can be taught to be a researcher in a single three hour course. However, you can be taught to be a better consumer of research in a three hour course. There is good research, and bad research. The aim is to get you to be able to tell the difference, and understand and articulate what the differences amount to.

The course opens with a historical and intellectual background to research. It moves through experimental and quasi-experimental design, explaining the notions of evidence, validity, and reliability. Different styles of research are described including: quantitative research, qualitative research, field research, archival research, and laboratory experiments. There are discussions of sampling and elementary descriptive and inferential statistics. (Doing extensive mathematical calculations is not part of the course. We do, though, try to develop an educated and critical eye for looking at other
people's choice of tests and calculations.) Research proposals and research reports are discussed. The course closes with an account of the types of research commonly found in Library and Information Science (such as evaluation research, qualitative research, surveys and questionnaires, and bibliometrics).

How this course will be taught

This is an online course taught virtually at a distance using the Web. The course is conceived of as discussions on 20 (or so) topics. A lecture course in the University of Arizona amounts to 37 1/2 hours of instruction spread through a semester. Our 'discussions' will be the virtual counterpart of 30 (or so) one and a quarter hour lectures, delivered at a rate of two a week. There will be notes, readings, discussion groups, chat, and (of course) assignments.

The course has a start date and an end date, and the class as a whole will move through the course together The primary means of introducing the scholarly material will be Notes. These are going to be posted one at a time steadily through the session, keeping the whole class moving forward through the material. There are 20 plus sets of Notes, and these normally will be delivered at a rate of 2 a week (usually put up on a Tuesday and a Friday). There will be assignments, with due dates, and formal discussions, and these will serve to check progress. There also will be readings or references to be followed up on the Web.

Almost all interactions will be asynchronous. That is, students can log on whenever they wish, and read material and post replies on timetables that suits their individual needs. A student will typically need to log on about 5 times a week. (An analog here is email-- most folk check their email at least five times a week.)

The students will also be placed in groups of about 4 students and there will be some groupwork.

d2l (desire to learn) and a wiki system will be used as the instructional and course management environment. Students who enrol in the course will be given an account. They will be able to log in to their account via the Learning Technologies Center E-Learning Portal. d2l has facilities for internal email, and this will be one way to contact the Instructor or the Graduate Assistant Teacher (GAT).

Students are expected to log on reasonably regularly, to read and study the Notes and references, to participate in the online discussions, to interact by email (and other means) with their fellow students, to write (or otherwise answer) the assignments, to download and upload files (this will be taught), and to carry out various other activities. It is hard to anticipate accurately how much time all these course related activities will take in total (and such a figure would vary from student to student and from week to week), but seven hours a week is a rough order of magnitude estimate.

The course will start in earnest a few days after the start of the semester. The d2l software can detect when students log on, and when most of the students have shown that they are present by logging on, the Instructor will get the course underway.

COURSE OBJECTIVES:

By the completion of this course, you will:

- know what empirical research is, and what are the typical techniques used to carry out such research in social science
- know what are the strengths and weaknesses of those techniques
- be able to say whether research you encounter is good; to say:
  - what was really being examined
  - what was the evidence, or support, or principled argument
  - what were the conclusions
  - whether the relationship between the evidence and the conclusions was adequate
  - whether we should we trust the results or the conclusions
- be able to consider the applicability of published or known research to your own libraries or information centers.
- have experienced, read, and discussed many examples of both good and poor research in Library and Information Science

Successful completion of this course will help students achieve the A1, A2, B1, B2, B3, B4, C1,C2 and C3 competencies
outlined at [http://sirls.arizona.edu/about/studentCompetencies](http://sirls.arizona.edu/about/studentCompetencies). More specifically, by the end of the semester, students will be able to:

**Student Competencies and Learning Outcomes**

**A. Foundational Understandings and Abilities**

A1) Students will demonstrate understanding of basic principles, concepts, and terminology related to the creation, organization, management, access, and use of knowledge and information and will demonstrate the ability to apply them to practical problems.

A2) Students will demonstrate understanding of the nature of research, research methods and the role of research in library and information science and additionally, demonstrate the ability to apply research findings to practical problems.

A3) Students will demonstrate understanding of the use of information and communication technologies in the provision of information resources and services in libraries and other settings.

**B. Disciplinary Knowledge and its Application**

B4) Students will demonstrate knowledge of the principles of organization and representation of knowledge and their application to library and information collections and services in their areas of career interest.

B5) Students will demonstrate knowledge of types of library and information professions, settings, services, and roles and be able to analyze key issues and potential approaches to these in the areas of their career interest.

B6) Students will demonstrate knowledge of the management of information resources, services and organizations and apply this knowledge to their areas of career interest.

B7) Students will demonstrate knowledge of the roles of interdisciplinary, interprofessional, and community collaboration and alliances in the provision of library and information services.

**C. Ethics and Values in Library and Information Science**

C8) Students will demonstrate an understanding of how diversity contributes to the library and information professions and analyze information issues from diverse perspectives.

C9) Students will demonstrate an understanding of the values and service orientation of the library and information professions and their applications in their areas of career interest.

C10) Students will demonstrate the ability to recognize and analyze ethical issues and dilemmas in library and information settings and propose reasoned courses of action.

**REQUIRED COURSE MATERIALS:**

Students need online access, either by way of their own computers and Internet connection or by public access means (such as those provided in Public Libraries or in campus labs).

Patten, Mildred L. [2009] Understanding Research Methods (Seventh Edition)
ISBN-10: 1884585833
208 pages
Publisher: Pyrczak Pub

Other editions of this text are perfectly usable and less expensive but the pagination and
indexing may be off. Extra attention will be needed to specific reading assignments.

**COURSE REQUIREMENTS:**

The coursework requirements are:

- one article evaluation as groupwork
- one grant proposal
- statistics quizzes. There will be two online statistical quizzes. Each of these will remain accessible for several weeks, and you will be able to make several attempts at them (with the grade of your best try to count).
- article evaluation. Five research articles in our field are included in the online readings. Students will evaluate one (2) of these articles as works of research.
- a summary/evaluation of a SIRLS brown bag presentation. SIRLS has a brown bag series. You need to attend at least one brown bag and write a summary/evaluation of it from methodological perspectives. (If you cannot attend the brown bag in person, SIRLS provides podcasts of brown bag presentations on its website.)
- bonus points. Three (3) bonus points will be given to one additional summary/evaluation of a SIRLS brown bag presentation. Up to three (3) bonus points can be given to a student.

The distribution of the marks is as follows

- article evaluation as groupwork 10%
- statistics quizzes 40%
- proposal 25%
- article evaluation 20%
- brown bag evaluation 5%

**COURSE, SCHOOL, AND UNIVERSITY POLICIES:**

**Academic Code of Integrity**

Students are expected to abide by The University of Arizona Code of Academic Integrity. 'The guiding principle of academic integrity is that a student's submitted work must be the student's own.' If you have any questions regarding what is acceptable practice under this Code, please ask an Instructor.

**Accommodating Disabilities**

The University has a Disability Resource Center. If you anticipate the need for reasonable accommodations to meet the requirements of this course, you must register with the Disability Resource Center and request that the DRC send me, the Instructor, official notification of your accommodation needs as soon as possible. Please plan to meet with me by appointment or during office hours to discuss accommodations and how my course requirements and activities may impact your ability to fully participate.

**Assignment Policies**

- **Submission:** The papers are to be submitted usually by the d2l assignment Dropbox, which can be found as a link on the toolbar. (A less preferable alternative is by d2l internal email to the Instructor, put, for example, 'Assignment One' as the subject and send the assignment either as the message or as an attachment to the message. Pure electronic documents need to be either plain text or formatted using HTML (just 'Save As' HTML using your favorite word processor).
- **Format, style and content:** Content is all important in this course. Style should be plain and transparent (be guided by the classic Strunk and White Elements of Style). The format is unimportant, except that it should be html.
- **Late papers:** There will be due dates and students are expected to meet them. With an online course like this, difficulties can arise (such as computers or d2l being temporarily out of service) and appropriate decisions will be made as needed.

**Incompletes**
The current Catalog reads

The grade of I may be awarded only at the end of a term, when all but a minor portion of the course work has been satisfactorily completed. The grade of I is not to be awarded in place of a failing grade or when the student is expected to repeat the course; in such a case, a grade other than I must be assigned. Students should make arrangements with the instructor to receive an incomplete grade before the end of the term ... If the incomplete is not removed by the instructor within one year the I grade will revert to a failing grade.

GRADING:

The following scales will be used

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<td>90-100%</td>
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<td>70-89%</td>
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<td>below 70%</td>
<td>C</td>
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**General grading criteria:** For ordinary papers, and unless specified otherwise, you should write about the equivalent of four pages of ordinary text. Grammar, style, or spelling are not central-- provided the paper is understandable and the faults are not so severe as to be a distraction. Then, important grading criteria include:

- clear articulation of your views and arguments
- soundness of what is said
- appropriate appeal to evidence
- clear and concise exposition of the points you are making
- consideration of intellectual context and relevant literature

**How to find out your grades:** d2l has two main ways to help a student find grades. There is a link on the toolbar named 'Grades' which, if clicked on, will display all the grades. Second, if a student clicks on a submitted and graded assignment in the Dropbox, the grade, and feedback comments from the Instructor, will be displayed.

**INSTRUCTOR NAME AND CONTACT ADDRESSES:**

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Click a term to initiate a search.

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