

MLIS 7700 Research Methods

Course Syllabus

Summer 2003

Valdosta State University

Instructor: Wallace C. Koehler, PhD
Email: wkoehler@valdosta.edu
Voice: 229 245-3732
Fax: 229 259-5055

Address: MLIS Program, Odum Library
Valdosta State University
1500 N. Patterson St.
Valdosta, GA 31698

This course is a Web based course. We will never meet “in person” The course consists of sixteen modules, each addressing aspects of research methods for the library and information science disciplines.

Purpose

MLIS7700 introduces library school students to social science research methods. Student will be exposed to the various approaches to social science research qualitative – the case study – and quantitative approaches. Students will perform small-scale research projects. They will also develop skills in the research uses of libraries and the needs of patrons they may serve in the future.

Course Objectives

I have several objectives I wish to achieve with this course. These are:

To quiet the fears and anxieties many students have with quantitative and qualitative research methodologies. If we achieve nothing more than a comfort level with the use and interpretation of research methods, we will have reached a level of success.

Most students in schools of library and information sciences will not pursue research careers where these methodologies will be used as tools of the trade. It is, however, almost certain that working librarians and other information professionals will need to prepare periodic reports. And even more of you will read and interpret the work of others. In order to interpret the work of others, it is necessary that you have the skills to evaluate their research methodologies. Good results derived from bad research are garbage. This is the more abstract and generalized form of GIGO.

A few of you will become researchers. There are many career opportunities ranging from information brokerage through academic research and teaching where research skills are required.

Finally, different kinds of research problems are "solved" using different qualitative and quantitative approaches. We will address these different strategies and

learn to select the "best" research design to meet our particular needs. Be Warned: I am very picky about this. Given very friendly computer software, there is NO excuse (where once ease of calculation was used) for sloppy statistical choices. I can only accept two excuses for less than full rigor in methodological choices: time constraints and limited financial resources.

Computer Equipment Needs

In order to successfully complete this class, students should have access at minimum to a 486 PC or equivalent, 56K Internet connection, an email client, a Word compatible word processor, an Excel compatible spreadsheet, Adobe Acrobat Reader (free from Adobe), and RealPlayer (free from Real). You will need speakers for part of the course.

In the last third of the class, you will need to have access to a computer loaded with SPSS. There are several choices open to you. You may buy SPSS or you may use SPSS products at a University System of Georgia school near you.

Text Books

Earl Babbie, *The Practice of Social Research*, 8ed.

Thomas Mann, *The Oxford Guide to Library Research*

The Mann text is an excellent discussion of the hows and whys of library research, use of facilities, and so forth. I have not assigned any specific chapters for any given week. Read a chapter every other week and reflect on what you have read the following week. I promise questions on the final from this important work.

Required Reading:

Thomas Kuhn, *The Structure of Scientific Revolutions* (Chicago: University of Chicago Press, 1962 or subsequent editions)

C.P. Snow, *Two Cultures and the Scientific Revolution*, 1959

M. Williams, "The State of Databases Today" see most recent edition of *Gale Directory of Databases*

Koehler, Digital libraries and World Wide Web sites and page persistence *International Research* 4, 4, 1999.

<http://www.shef.ac.uk/~is/publications/infres/paper60.html>

T. Michael Ciolek, The six quests for the electronic grail: Current approaches to information quality in WWW resources. *Revue Informatique et Statistique dans les Sciences Humaines* (1-4), 45-71, 1996. Also on line:

<http://www.ciolek.com/PAPERS/QUEST/QuestMain.html>

D. Shaw, "The Human-Computer Interface for Information Retrieval," *Annual Review of Information Science and Technology*, 26, 1991.

American National Standards Institute, American National Standard for the Preparation of Scientific Papers for Written or Oral Presentation, ANSI Z39.16-1979

Course Requirements

Research Exercises 60 percent of grade (15 percent for each exercise). Research Exercises 1, 2, and 4 are not to exceed five pages each. For exercise 2, tabular appendices, if used, are not included in the page count. Each of the three statistical exercises assigned under research exercise 3 is not to exceed two (2) pages, including tables.

(1) Case Study. Each student will produce a case study of some issue in librarianship and information studies. This exercise may be humanistic, legalistic, moralistic, or scientific. For example, one might choose to shepardize *Reno v ACLU*. One might describe censorship in an historical context. Or one might analyze the impact of the US Library of Congress or OCLC on cataloging worldwide.

(2) Bibliometric Exercise. Each student will prepare a bibliographic paper. Because of privacy and other concerns, the focus of the effort will be on your ever so humble instructor in this class. Bibliometrics includes not only a collection or list of published works; it also includes citations by others to that work. Warning: this exercise is not nearly so easy as it may seem. Hints as we go along.

(3) Statistical exercises using SPSS. There will be three separate exercises designed to familiarize students with statistical methods as well as developing a comfort level with SPSS. Exercise 1 addresses monivariate statistics, exercise 2 is concerned with bivariate statistics of significant difference, and exercise 3 focuses on bivariate statistics of covariance.

(4) Choose ANY formal research article employing a quantitative methodology from the *Journal of the American Society for Information Science and Technology*, volumes 45 through 53 (last eight years). Describe the research methodological approach, and critique that methodology. What is good, bad, valid, appropriate, inappropriate, original, et cetera about the approach. Does the methodology support the findings? We are NOT concerned here with the utility or quality of the research question per se or whether it is of interest to anybody, but whether the methodology is "correctly" applied and is appropriate to the question.

(5) Research Project: 25 percent of grade (data collection: 5 percent; group data analysis 20 percent)

We will do a bibliometric data collection. This entails the capture of “metadata” from the complete run of an academic journal. We will discuss which journal and the data collection process at the beginning of class. Once the data are collected (Note, except in *StarTrek*, the word "data" is plural), each student group will develop hypotheses, perform statistical analyses on the class collected data set using the SPSS package, and prepare a written report not to exceed 30 pages (but closer to 20 pages is preferred). In preparation of the Report, follow ANSI Z39.16. The professor will write up an article based on the data the class collects and seek to publish it in an academic journal. Students in the class will be listed as co-authors. FYI, I have done this before for other classes and thus far have published or presented the results for all classes.

Final Exam 15 percent of grade. Comprehensive take home open book exam. Remember that everything presented in “class” or assigned as required readings can be asked. In addition, where appropriate video tapes will also be shown. Examination questions can also be built around these.

Practical Exercises Several practical exercises in the use of SPSS and in research observation are planned toward the end of the semester. These are not graded, EXCEPT that a good faith effort and participation is required. Work sheets, printouts, and other working papers are to be turned in. Failure to participate will cost two (2) percentage points from the final grade average each.

Grades

Individual assignment weights are provided above. Final grades will be assigned as follows:

- A – 91-100
- B – 81-90
- C – 71-80
- D – 60-70
- F – 0-69