Q 9410-2
Doctoral Seminar:
Research in Information Science & Learning Technology
Fall, 2014

SISLT 9410-3   Thursdays, 3:00 – 5:45 PM
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Authentic Roles for Reading, Evaluating, and Generating Research in Information Science, Library Science, Learning Sciences and Learning Technology

1. Critically evaluating research in learning sciences and technology
The Ph.D. is a research degree. By enrolling in a Ph.D program, you are preparing for the role of researcher. If that is not your goal, you probably should not be in the Ph.D. program. As a researcher in Missouri's iSchool, you will learn how to critique research in learning sciences, information sciences, library science and learning technology. In this course, you will fulfill this role in two ways: evaluator and discussant.

   Evaluator: As an evaluator, you will read, critique, and evaluate research and research proposals and research papers submitted for publication or presentation. Your task is to identify the conceptual and methodological strengths and weaknesses of research papers and be prepared to discuss those in class. Research proposals will be distributed. You will evaluate the proposal using the Review sheet and be prepared to make and defend a recommendation about the paper.

   Discussant: As a Discussant, you will critique research papers as if you were a discussant at a conference. In this role, you should look for strengths and virtues of the study, synthesize the findings with larger issues in the field, and then suggest ways of improving the future studies, including appropriate agendas. You would be required to write a 1-2 page review of the papers, as if you were a discussant.

2. Professor in Field
As a professor, you will become knowledgeable in different research areas and a generalist in one of many different iSchool focus areas; most likely library science, information science, learning sciences, games for learning or however your interests evolve. You need to be able to teach students how to conduct research as well as teaching students about trends and issues in the specific field where you find a scholarly community. In this course, you may be able to begin that inter-relating research issues and trends in the field. You will be reading several chapters in the Handbook and building a conceptual model of research in the field.

   Discussion Leader: In teaching classes, you will be responsible for leading class discussions. Identify an exemplary study in your research area of interest (Hint: Use Google Scholar to find highly cited articles in your field) and distribute to classmates. You will lead a discussion about that chapter and paper, answering at least these questions:

- What research questions have been asked? That is, what research issues have been addressed? What has that research found?
- What methods and data sources were used and should be used?
- What research questions should be asked? That is, what research issues need to be addressed?
- What methods should be used for researching those questions?

Construct a concept map tat includes the important concepts in that paper.

3. Researcher in Field

As a researcher, you must conduct research (at least a dissertation). In order to conduct research, you must be able to conceptualize a research issue and develop a justification (argument) for the research questions that you write. You must also be able to select and implement appropriate methodologies (the primary topics of quantitative and qualitative methods courses). In this course, we will focus on two skills:

Selecting Researchable Questions: Locating and selecting research from journals that are important and that interest you and selecting and evaluating appropriate journals in which to find research. This requires that you be able to use research databases, select appropriate journals, and select from those journals papers that represent meaningful, cogent research questions.

Identify issues and their interactions in the study.
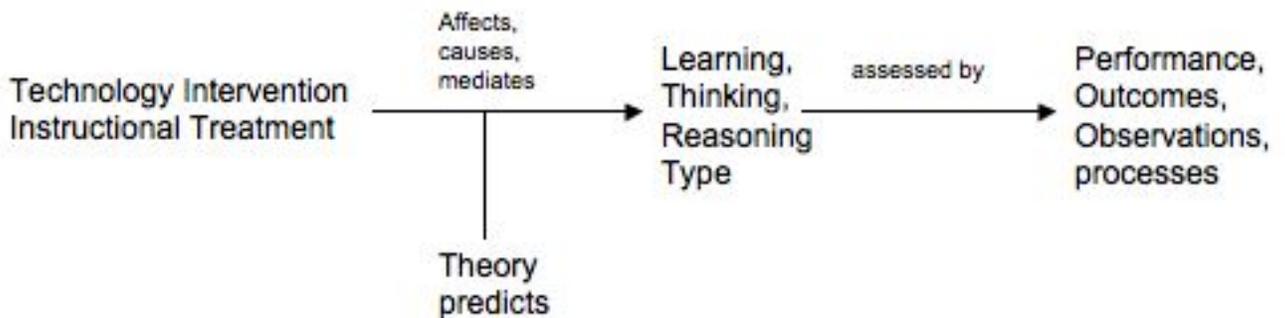
Conceptualizing research in learning sciences and technology: You will be expected to develop a proposal for a study. You will be required to have completed an abstract, introduction, and method section as described in the APA Manual. This process requires that you identify a problem area, identify significant questions and issues related to that research area, and construct a research argument justifying your study.

Describe research methods for the major type of research that you propose (experimental, correlational, causal-comparative, survey, historical, and qualitative (e.g., phenomenology, ethnography, grounded theory)

Course Requirements

1. **Analyze and evaluate research papers and proposals (30%)**. Given conference research proposals or papers to review, critically evaluate the question/argument, the methodology, the findings, and the significance of the research in the proposal.

2. **Develop a research proposal (50%)**. On a research topic of your choice, review the available research, identify an appropriate question/issue/problem to be addressed, develop a paper which reviews the research and sets up the problem/hypotheses/investigation, and propose a research methodology for investigating the question. The most important criterion is the construction of a coherent, cogent argument.

3. **Lead discussion of issues/topics relevant to your personal interests (20%)**. Select a chapter from the Handbook; find 1 high quality research study about that topic and distribute to class; construct a concept map on the topic, lead discussion of topic addressing these and other issue:
   - What questions have been asked? By whom? What results?
   - What research questions need to be asked?
   - What methods are appropriate for researching those questions?
   - What data sources should be used?

Texts

Golden-Biddle, K., & Locke, K. (2007). *Composing qualitative research*. Sage.
Gopen, G. D. (2004). *The sense of structure: writing from the reader's perspective*.
       Longman.
Becker, H. S. (2008). *Writing for social scientists: How to start and finish your thesis, book,
       or article*. University of Chicago Press.

Papers as assigned found on Blackboard website.

Schedule

8/28   Personal research interests; Course Orientation; Research paradigms

9/4   Types of research approaches in learning sciences and technology
        Read Chapters 2 and 4, *Multidisciplinary Methods in Educational Technology
        Research and Development (Blackboard)*
        Read Quant and Qual papers for 8/30 on Blackboard
        Answer Questions:
            What issues are being researched?
            What methods did the researchers use?
            What kinds of data did studies collect?
            What assumptions did studies make?
            What generalizations can we make from research?

What is the role of the researcher in each kind of study?

9/11　Research Genres; Roles of Introduction (CARS Model); Analyze research papers
Under Genre Analysis Materials, Read Excerpt from Swales, *Genre Analysis,*
start 7.4 on page 137
Read Golden-Biddle and Locke Book
Read Defining a Literature by Mary M. Kennedy

9/18　Move Analysis
Read Introductions to papers for September 11 (see website) and conduct Move
Analysis on them.

9/25　Maybe more practice on classifying moves and steps in Introductions research
papers (Blackboard)
Accessing Research; Databases; References

Assignment: Read Chapter 1 of Gopen (at least 3 times).
Assignment: Analyze the title and abstracts of 5 journals in the field for the past 5-
6 years; identify trends, topics, and issues in research; identify research methods
most commonly used

10/2 Literature searching; journals in field; Selecting a topic; taking notes and
evaluating literature;
Assignment: Read Chapters 2 & 3 in Gopen.
Assignment: Revise 5 paragraphs in the paper on Blackboard to address Gopen's
points about sentence connection.

10/9 Class Discussion: Chapters from Gopen; Find a research report related to your
interests and analyze for genre; Lead class discussion about topic
What questions have been asked? By whom? What results?
What research questions need to be asked?
What methods are appropriate for researching those questions?
What data sources should be used?

10/16　Class Discussions of Research Topics, continued

10/23　Evaluating Papers
For the 3 papers that were submitted for publication proposals on Blackboard
under October 16, write a bulleted list of moves in the Introduction and the a 2-3
paragraph review of the strengths and weaknesses of the paper. Make a
recommendation whether the paper should be
Accepted as is
Accepted after minor revisions
Accepted after major revisions
Rejected

10/30   Proposal For the 5 papers that were submitted for presentation the ACM Group Conference under October 23, write a 2-3 paragraph review of the strengths and weaknesses of the paper. Make a recommendation whether the paper should be

> Accepted for the conference
> Rejected for the conference

Assignment: Finish Reading Gopen
Assignment: Edit 3 papers following Gopen's advice on paragraph connection and sentence connection. Share with small group team members by Sunday.

11/6   Present your paper edits and discuss in small groups; Present preliminary moves for your FINAL PAPER.

11/13   ACM Group in Sanibel Island Florida

11/20 Present a full outline of your final paper and the preliminary moves.

11/27   Thanksgiving Break

12/4   Research Reports

12/11 Research Reports

Academic Honesty

Academic honesty is fundamental to the activities and principles of a university. All members of the academic community must be confident that each person's work has been responsibly and honorably required, developed and presented. Any effort to gain an advantage not given to all students is dishonest whether or not the effort is successful. The academic community regards academic dishonesty as an extremely serious matter, with serious consequences that range from probation to expulsion. When in doubt about plagiarism, paraphrasing, quoting or collaboration, consult the course instructor. The University has specific academic dishonesty administrative procedures. Although policy states that cases of academic dishonesty must be reported to the Office of the Provost for possible action, the instructor may assign a failing grade for the assignment or a failing grade for the course, or may adjust the grade as deemed appropriate. The instructor also may require the student to repeat the assignment or to perform additional assignments."

Disability Services

If you need accommodations because of a disability, if you have emergency medical information to share with me, or if you need special arrangements in case the building must be evacuated, please inform me immediately. Please see me privately after class. To request academic accommodations (for example, a note taker or extended time on exams), students must also register with the Office of Disability Services (http://disabilityservices.missouri.edu <http://disabilityservices.missouri.edu>), S5 Memorial Union, 882-4696. It is the campus office responsible for reviewing documentation provided by students requesting academic accommodations, and for

accommodations planning in cooperation with students and instructors, as needed and consistent with course requirements. For other MU resources for students with disabilities, click on "Disability Resources" on the MU homepage.

Research Journals in Various iSchool Disciplines
ACM Conference Proceedings
   ACM Group
   ACM CSCW
   ACM CHI
ALAN Review
American Behavioral Scientist
American Educational Research Association Journal
Children's Literature Association Quarterly
Children's Literature in Education
College & Research Libraries
Computers and Education
Computers and Human Behavior
Educational Technology Research and Development (ETR&D)
Gender and Education
Information Processing and Management
Information Technology and People
Journal of Academic Libraries
Journal of Adolescent and Adult Literacy
Journal of Children's Literature
Journal of Documentation
Journal of Education for Library and Information Science
Journal of Information Science
Journal of Literacy Research
Knowledge Organization
Library and Information Science Research
Library Quarterly
Library Resources and Technical Services
Lion and the Unicorn
New Media and Society
New Review of Children's Literature and Librarianship
portal: Libraries and the Academy
Reading Research Quarterly
Reference & User Services Quarterly
Research in the Teaching of English
The British Journal of Educational Technology
The Information Society
VOYA - Voices of Youth Advocates

Research Journals in Instructional Systems
ALT-J: Association for Learning Technology Journal
American Journal of Distance Education

Asian Pacific Journal of Education
Australian Journal of Educational Technology
Behavior Research Methods, Instruments, and Computers
British Journal of Educational Technology
Canadian Journal of Learning and Technology
Computers and Education: An International Journal
Computers in Human Behavior
Computers in the Schools
Computer-Supported Collaborative Learning
Educational Psychologist
Educational Technology
Educational Technology: Research and Development
Educational Technology Review
Education and Training Technology International
Human-Computer Interaction
Human Performance
Innovations in Education and Training International
Instructional Science: An International Journal of Learning and Cognition
Intelligent Tutoring Media
Interactive Learning Environments
Interacting With Computers
International Journal of Educational Research
International Journal of Instructional Media
International Journal of Man-machine Studies
Journal of Artificial Intelligence in Education
Journal of Computer Assisted Learning
Journal of Computer Based Instruction
Journal of Computing in Higher Education
Journal of Contemporary Educational Psychology
Journal of Educational Multimedia and Hypermedia
Journal of Educational Computing Research
Journal of Educational Psychology
Journal of Educational Technology Systems
Journal of Information Technology Education
Journal of Instructional Development
Journal of Interactive Instruction Development
Journal of the Learning Sciences
Journal of Research and Development in Education
Journal of Research on Computing in Education
Journal for Research on Technology in Education
Journal of Educational Psychology
Journal of Educational Technology Systems
Learning and Instruction: The Journal of the European Association for Research on Learning and Instruction
Performance and Instruction
Performance Improvement Quarterly

Programmed Learning and Educational Technology
Review of Educational Research
Technology, Instruction Cognition & Learning