

Research Methods PL (451)
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Instructor:

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Introduction

Research is an intellectual activity that relies on a systematic inquiry to understand a phenomenon under investigation. In the academic world, researchers use multiple methods to answer questions such as what, how, and why which enable them to contribute to the development of knowledge in their respective fields (Patton, 2002). Not only academic institutions are concerned with the development of rigorous research methods to gain prominence in the global stage but also businesses, firms, and public institutions utilize research to develop certain products or solve problems. With its interdisciplinary approach, planning research focus on issues and problems of development of communities that range from small neighborhood to metropolitan region. The complexity of planning research stems from its pursuit of sustainable development that balances between healthy environment, vibrant economy, and equitable society. This course focuses on the nature of inquiry of planning research, framing planning research problems, and skills for writing research proposals.

Objectives

The purpose of the course is to teach students about developing planning research proposals that exhibit thoughtful, thorough, theoretical and practical understanding of the background, purposes and processes employed in scholarly research and reporting in the Master in Planning Program. Course objectives are:

- Introduce writing an academic proposal and its components, with a focus on being able to produce a conceptual framework (a model of the system under investigation), rationale, research purpose and objectives, and an overview of appropriate methods.
- Relate personal background, education, skill sets and interests to your research focus.
- Make progress towards developing an in depth understanding of a research subject.
- Improve skills for accessing and using literature and precedents as a basis for research.
- Learn how to critically review literature and precedents for framing a research problem.
- Learn how to create a conceptual framework for a research project.
- Develop an understanding of interdisciplinarity and multiple ways of knowing.
- Learn how to think critically as a researcher by testing assumptions and ideas.
- Understand the iterative nature of planning research, including the evolution of research questions or objectives, and allowing ideas to mature through debate and inquiry.

Teaching Approach

Lectures, group exercises, tutorials, discussion and feedback on assignments are employed in experience-based, inquiry-focused explorations for intervention-oriented environmental design research. Emphasis is placed on collegial exchanges among class participants including students, instructors, advisors, and mentors. Through a series of individual and group exercises and assignments students will build a foundation for research, develop a conceptual framework (the system of concepts, assumptions,

expectations, beliefs, and theories that supports and informs a research project), and write and present an academic proposal on a research topic of their choice.

Content: Topic Areas & Detailed Class Schedule

Date	Topic and activities
September	
Week 1:	Lecture: Course introduction and introduction to environmental design research. Exercise: form thematic groups; address question - Why does planning research matter? Oral report by groups at end of class.
Week 2:	Lecture: Relationships between background, research interests and literature. Group exercise: What are you bringing to your thesis research; how is it relevant; how does it influence the way you think? Oral group report. Assignment #1 due: Written Brief on Research Interests and Background
Week 3:	Lecture: Using the literature and information management - sources, search engines, peer-reviewed vs. gray literature and web information, information management. Group exercise: Annotated bibliography on a negotiated topic. Oral report.
Week 4:	Tutorial at KSU Library - library resources and literature search relevant to planning fields of study (to be confirmed)
October	
Week 5:	Lecture: How to find a research topic, frame a research problem, and develop it into a research proposal. Group exercise: Describe a research problem on a topic of interest to the group and suggest gaps in knowledge or practice (research opportunities). Oral report.
Week 6:	Lecture: Theoretical foundations and conceptual frameworks (system of concepts, assumptions, expectations, beliefs, and theories that supports and informs a research project). Group exercise: develop a conceptual model (diagram) of a research problem and report key concepts. Oral report and diagram.
Week 7:	Lecture: Research purpose and objectives. Group exercise: Based on the conceptual model developed previously (or a refined or new one of the group's choice) develop a research purpose statement and objectives. Oral report. Assignment # 2 due: Written literature review and annotated bibliography
Week 8:	Lecture: Research methods - qualitative, quantitative and mixed methods frequently used in planning research (part 1). Group exercise: review methods used by two previous authors to address research objectives of common interest to the group. Oral report.
November	

- Week 9: Lecture: Research methods - qualitative, quantitative and mixed methods frequently used in planning research (part 2). Group exercise: review methods used by two previous authors to address research objectives of common interest to the group. Oral report.
- Week 10: Lecture: Academic expectations and the student-supervisor relationship (survival tips for grad school). Group exercise: What are your expectations of a supervisor and supervisory committee and of yourselves, as grad students? Oral report
- Week 11: ***Presentations of assignment #3: research purpose and objectives, and review of appropriate methods.***
- Week 12: Individual work and tutorials with instructor (complete research proposal)

December

- Week 13: Individual work and tutorials with instructor - written proposals
 - Week 14: Course review. Individual work and tutorials with instructors - written proposals
- Assignment # 4 due: Written research proposal***

Means of Evaluation

The course evaluation will be based on assignments completed during the term, which includes written assignments and presentations. There will be no final examination. Written assignments must be submitted as MS Word 97-2004 documents (.doc). Presentations and graphics must be presented as MS Power Point slides (.ppt) or in portable document format (.pdf). Be aware that presentations may not display the same on different computers (especially fonts), so check to be certain this will not be a problem before you present.

Assignment 1 (written): Brief statement of research interest; maximum 800 words of text; due Week 2 10%

This report outlines the nature of the topic the student intends to develop as a research proposal. Briefly: describe the topic; the need for research; your academic and professional background and experience relevant to conducting research on the topic; and provide a summary of necessary skills and knowledge to be enhanced or acquired for conducting successful research on the topic. This is a starting point only. It is expected that the research focus will evolve as the problem is explored throughout the remainder of the course, and subsequently during the degree program.

Assignment 2 (written): Literature review and annotated bibliography; due Week 7 10%

The report begins with a brief review (1000 word limit) of the research topic, including: key theories and concepts; descriptions of seminal authors and their works; and current high impact authors. The annotated bibliography includes the citation and your abstracted review of information in the article including its content, the author's arguments, and most importantly, key words and your thoughts on the relevance of the article to your research interests noted for future reference. This written assignment must be formatted according to provided guidelines. The **minimum** number of annotated entries in the bibliography is 10 papers, book chapters, books, or other peer reviewed

references (i.e. primary academic literature). The bibliography may include additional references that are not annotated or peer reviewed, but are relevant to the research topic.

Description of the problem (phenomenon under study and its importance), theoretical foundations, concepts concerning how you think the system works, and a diagrammatic representation (model) of the system being studied. The problem, theories and concepts are to be referenced to the literature. The conceptual model will be represented as a diagram of the 'system' under investigation, including factors, the nature of their interactions, intervention 'levers' that could influence design outcomes, and potential research foci.

Assignment 3 (presentation): Research problem statement, purpose and objectives, and review of relevant methods; Presentations in class (Week 11) 20%

The research problem statement provides a brief overview of the phenomenon and a specific research problem (focus). The purpose describes the qualitative end point of the project (what you propose to achieve). Objectives or research questions are specific foci for the research, which if addressed will accomplish the purpose of the project. Provide a brief review of methods used by previous authors to address similar research objectives or questions.

Assignment 4(written): Complete research proposal; due week 14 20%

Written research proposal, maximum of 5 pages of text (introduction, purpose and objectives, overview of methods), accompanied by a conceptual model (diagram) of the system under study that highlights focal research elements, and a list of literature cited in the proposal.

Final Exam: in class 30%

Attendance & participation 10%

Total 100%

Readings

The following are suggested readings for the course. Journal articles are available through King Saud University Library digital resources. Books may be found in the library or purchased from the bookstore, Amazon (Amazon.com).

Bradley, C. and E. Green (2011) Reflective journaling. Centre for teaching and Learning. University of Regina. <http://www.uregina.ca/ctl/blog/reflective-journaling>

- Creswell, J (2003) *Research design: qualitative, quantitative, and mixed methods approaches*. Thousand Oaks, CA: Sage.
- Dorst, K. (2008) Design research: a revolution-waiting-to-happen. *Design Studies* 29: 4-11.
- Friedman, K. (2003) Theory construction in design research: criteria, approaches, and methods. *Design Studies* 24:507-522.
- Guthery, F. (2008) Statistical ritual versus knowledge accrual in wildlife science. *The Journal of Wildlife Management* 72(8): 1872-1875.
- Kuipers, T.A., Vos, R., and Hauke, S. (1992) Design Research Programs and the Logic of Their Development. *Erkenntnis* 37: 37-63.
- Maxwell, J.A. (2013) Chapter 3 Conceptual framework: What do you think is going on? Pages 39-72 in L. Bickman and D. Rog (eds.) *Qualitative research design: An interactive approach*. Sage Publications Inc., Los Angeles.
- Patton, M. Q. (2002). *Qualitative research & evaluation methods* (3rd ed.). Thousand Oaks, CA: Sage.
- Ortlipp, M. (2008) Keeping and using reflective journals in the qualitative research process. *The Qualitative Report* 13(4): 695-705.
- Yin, R. K. (2009) *Case study research: Design and methods* (4th ed.). Thousand Oaks, CA: Sage.
- Zerubavel, E. (1999) *The clockwork muse: A practical guide to writing theses, dissertations, and books*. Harvard University Press. 128 pp.

Web Sites by Topic

Annotated bibliographies: <http://www.writing.utoronto.ca/advice/specific-types-of-writing/annotated-bibliography>

Reflective journaling: <http://www.uregina.ca/ctl/blog/reflective-journaling>

Additional recommended Reading

Antrop, M. (2003). Expectations of scientists towards interdisciplinary and transdisciplinary research. *Interdisciplinary and transdisciplinary landscape studies: potential and limitations*. B. Tress, G. Tress, A. van der

Bayazit, N. (2004). "Investigating design: A review of forty years of design research." *Design Issues* 20(1): 16-29.

Buchanan, R. (2001). Design research and the new learning. *Design Issues* 17(4):3-23

Castán Broto, V., M. Gislason, et al. (2009). "Practicing interdisciplinarity in the interplay between disciplines: experiences of established researchers." *Environmental Science & Policy* 12(7): 922-933.

Dalrymple, J. and W. Miller (2006). "Interdisciplinarity: a key for real-world learning." *Planet* 17: 29-31.

Dimagio, P.J. (1995). Comments on "What Theory is Not". *Administrative Science Quarterly*, 40(3), 391-397.

Dorst, K. (2008). Design research: a revolution-waiting-to-happen. *Design Studies* 29: 4-11.

Downton, Peter (2005). *Design Research*. Melbourne, AUS: RMIT University Press.

Eastman C., W.C. Newstettler and W.M. McCracken, eds. 2001. *Design knowing and learning: cognition in design education*. Elsevier, Oxford.

Friedman, K. 2003. Theory construction in design research: criteria, approaches, and methods. *Design Studies* 24:507-522.

Kuipers, T.A., Vos, R., & Hauke, S. (1992). *Design Research Programs and the Logic of Their Development*. *Erkenntnis*, Kluwer Academic Publishers, 37, 37-63.

Lakatos, I., & Musgrave, A. (eds.) (1974). *Criticism and the Growth of Knowledge*. London, UK: Cambridge University Press.

Lieblich, A., Tuval-Mashiach, R., & Zilber, T. (1998). *Narrative Research: Reading, Analysis, and Interpretation*. Thousand Oaks, CA: Sage Publications, Inc.

Locke, L.F., Spirduso, W.W., & Silverman, S.J. (1993). *Proposals that Work*. Newbury Park, CA: Sage Publications.

Magee, B. (1973). *Popper*. London, UK: Fontana.

Mason, J. (1996). *Qualitative Researching*. Thousand Oaks, CA: Sage Publications, Inc.

McGregor, S. L. T. (2004). "The nature of transdisciplinary research and practice."
[unpublished, but I like her synthesis]

Morgan, G. (Ed.) (1983). *Beyond Method, Strategies for Social Research*. Thousand Oaks, CA: Sage Publications, Inc.

Nicolescu, B. (2005). *Transdisciplinarity past, present and future*. Moving Worldviews. Soesterberg, the Netherlands.

Oxman, R. 2004. Think-maps: teaching design thinking in design education. *Design Studies* 25:63-91.

Pacanowsky, M. (1995). "Team tools for wicked problems." *Organizational Dynamics*, 23(3), 36-52.

Popper, K.R. (1992). *The Logic of Scientific Discovery*, London, UK: Routledge.

Schön, D. A. (1983) *The Reflective Practitioner: How professionals think in action*. London, UK: Temple Smith

Schön, D. A. (1987) *Educating the Reflective Practitioner*. San Francisco, CA: Jossey-Bass.

Slife, B.D., & Williams, R.N. (1995). *What's Behind the Research?* Thousand Oaks, CA: Sage Publications, Inc.

Sommer, R., & Sommer, B.B. (1980). *A Practical Guide to Behavioral Research*. New York, NY: Oxford University Press.

Sutton, R.I., & Staw, B.M. (1995). What Theory is Not. *Administrative Science Quarterly*, 40(3), 371-384.

Weick, K.E. (1995). What Theory is Not, Theorizing Is. *Administrative Science Quarterly*, 40(3), 385-390.

Zeisel, J. (1988). *Inquiry by Design*. New York, NY: Cambridge University Press.

Zerubavel, E. (1999) *The clockwork muse: A practical guide to writing theses, dissertations, and books*. Harvard University Press. 128 pp.