

University of British Columbia
Faculty of Education

Education 500 (004)
Research Methodology in Education
Winter Term 2 (January) 2012
Scarfe 209
Tuesday 4:30-7:30pm

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Course Notes

Course Description

This course is an introduction to educational and social research for practitioners in schools and human services. The focus will be on fundamental issues in empirical research—that is research based on, concerned with, or verifiable by observation or experience, rather than theory or pure logic—including research methodology and research techniques (e.g., data collection, analysis and interpretation). This is not a research design or statistics course. In this course we will focus on: (a) developing an understanding of various kinds of educational and social research; (b) developing skills that will facilitate critical reading of educational and social research; and (c) exploring the role and use of research techniques to reflect upon and improve practice.

The course will cover “qualitative” and “quantitative” approaches to research. The terms “qualitative” and “quantitative” are commonly used to distinguish between experimental and non-experimental approaches, however, the difference between these “families” of research are quite complex. Throughout the course we will explore the methodological (e.g., epistemological, ontological, political and value assumptions) as well as the technical differences between these approaches.

Course Requirements

(A) Students are expected to complete all readings and other assignments as scheduled, attend and participate in each class.

(B) Classroom discussion and research explanation activities. Much of our in-class time will be spent in various learning activities that will extend from the readings. Class discussions on the readings will include an assessment of the content and concepts from

the reading, questions you have about the material, your personal experiences relevant to topics, suggestions of how we might confirm or disconfirm what is being argued, thinking about what produces the phenomenon being described (broader school and societal factors), criticisms of the authors' arguments and observations, implications of the reading for changing schools, and reflections on the relationship among the readings. While not required I suggest keeping a journal of your reading, which will help you in class discussions and improve your understanding of the topics being considered. Your journal might include notes you take as you read, but would be primarily devoted to your analytical reflections on what you've read and your preparation for discussion. There are two "Shared Pair" research explanation activities, **January 24 and January 31** (though we may engage in this exercise on additional dates, as assigned). **Participation in the research explanation activities is a requirement for successful completion of the course.**

(C) Application problems/quizzes (homework and class work). At various times during the semester I will present you with application problems to solve in-class or for homework. The nature of these problems will vary, but will be related to the readings for the week and may be "open book." Please bring a calculator to class for use in solving simple statistical problems (I'll let you know in advance when this will be necessary). I will also give periodic quizzes. **DUE throughout the term. (15% of mark)**

(D) Research Topic. Identify and state a research topic, problem, question or hypothesis, clearly defining terms and/or variables, which will be the focus of your research review paper (see (F) below). Write a rationale (background and relevance) for the importance your topic for educational or social research. Your one page single-spaced (maximum) paper should include: a description of topic/problem; a rationale for investigating the topic; a list of database search terms related to the topic; and at least three sample citations of relevant research reports. **DUE: January 31 (10% of final mark; length, 1 single-spaced page maximum).**

(E) Research Study Critiques. You will select and critique three research articles (one "review of research", one "qualitative" study and one "quantitative" study) on a topic of interest to you. The report of your critique will consist of two parts: (1) an oral presentation to a peer group and (2) a written report. The written report should provide a brief description of the study, however, the focus should be on analysis of the credibility of the study—assess the methods used to gather information, judge the evidence for the claims made and the conclusions stated in the study and pose further or unresolved questions to be investigated. See examples of completed critiques in the Locke et al. text.

Presentation and written critique of a research review article DUE: February 7 (15% of final mark).

Presentation and written critique of quantitative study DUE: February 28 (15% of final mark). In critiquing a "quantitative" study consider the type of quantitative study you are analyzing (e.g., experiment, quasi-experiment, causal-comparative, correlational, survey). See the appropriate chapters of your texts.

Describe and analyze the study on the following points: (1) purpose of the study; (2) internal validity; (3) practical significance of differences reported between groups; (4) validity of outcome measures; (5) assumptions about schooling and/or learning; (6) external validity.

Presentation and written critique of a qualitative study DUE: March 20 (15% of final mark). In critiquing a “qualitative” or naturalistic study, draw on classroom lectures and handouts well as the course text’s discussions of qualitative research. Because of their idiosyncrasies, applying uniform standards to naturalistic studies may be inappropriate. Nevertheless, studies do vary in quality. The following issues may be considered about the qualities of naturalistic studies: (1) time spent collecting data; (2) access to data; (3) “naturalness” of the data; (4) researcher self-criticism; (5) logical validity; (6) confirmation; (7) descriptive adequacy; and (8) significance.

Format for Written Critiques: *Use the 12-step format described in the Chapters 7, 11, and 13 of Reading and Understanding Research (Lock, Silverman, and Spirduso, 2010). Each critique should: (a) briefly answer each of the 12 questions, (b) include a critical/explanatory summary, and (c) include a graphic tool/flowchart. Your critique should be typed with pages stapled in top left corner (no folders, envelopes or binders). Be sure that you have spell-checked and proof read the paper. Graphic/flowchart may be submitted in readable freehand. In preparation for presentations read Locke et al. Chapter 8.*

(F) Research Review Paper. You will select a particular topic/question to examine and write a review of selected research in that area. You should locate, read, and evaluate a minimum of 5 to 7 original, empirical research studies on a specific issue [e.g., research reports written by the researcher(s)]. Your research review paper should include at least: (a) one review of research; (b) one qualitative research study and (c) at least one research report that is correlational, causal-comparative, or experimental. Your paper should present a brief descriptive synthesis of the findings from the studies you examined and include a discussion that compares and contrasts the various methods used to examine the issue under investigation and how these methods affect the ways in which the issue is investigated, the findings of the studies and the implications of the research for practice. The paper should be about 10 double-spaced pages in length (2,500 words). Please append a reference list (APA style) of studies included and a completed 12-step form, flowchart, and critical/explanatory summary for each of the studies. **Presentation to group and written paper DUE: April 3. (30% of final mark)**

(G) Self Evaluations. You will be asked to formally assess your own performance—describing the quality of your work, your understanding of the material, your strengths and weaknesses in dealing with the subject matter, the hours you devoted to the course, and the timeliness of your assignments. I will take this self-evaluation into account when assigning grades. **Maximum length one single-spaced page. DUE: April 3 (required for successful completion of the course).**

Course Evaluation

Course grades will be determined based on the following:

- Written critiques of research studies (3) 15% each (45% total)
- Research review paper 30%
- Research topic/problem statement (terms/citations) 10%
- Class participation/Application problems/quizzes/explanation activities 15%
- Participation in in-class research explanation activities
- Written self-assessment

Attendance at all classes is required. All assignments should be typewritten unless otherwise specified. I do **NOT** generally accept late work. If you anticipate a problem meeting any due date, please contact me in advance to discuss alternatives, if any.

Readings

Required Text

Locke, L. F., Silverman, S. J., & Spirduso, W. W. (2010). *Reading and understanding research (3rd Ed.)*. Thousand Oaks, CA: Sage.

Recommended Text

Bracey, G. W. (2006). *Reading educational research: How to avoid getting statistically snookered*. Portsmouth, NH: Heinemann.

Optional Text

Palys, T. (2008). *Research decisions: Quantitative and qualitative perspectives (4th Edition)*. Scarborough, ON: Thompson Nelson.

Additional Required Readings¹:

Freeman M., & Mathison, S. (2009). *Researching children's experiences*. New York: Guildford. [pp. 19-36 & 69-85]

Hare, J., & Pidgeon, M. (2011). The way of the warrior: Indigenous youth navigating the challenges of schooling. *Canadian Journal of Education*, 34(2), 93-111.

Kanevsky, L. (2011). A survey of educational acceleration practices in Canada. *Canadian Journal of Education*, 34(3), 153-180.

Kelly, D., Pomerantz, S., & Currie, D. (2005). Skater girlhood and emphasized femininity: 'You can't land an ollie properly in heels.' *Gender and Education*, 17(3), 229-248.

Wirkala, C., & Kuhn, D. (2011). Problem-based learning in K–12 education: Is it effective and how does it achieve its effects? *American Educational Research Journal*, 48(5), 1157-1186.

¹ Other reading may be assigned to address issues that arise during the term.

General Guidelines

Plagiarism. Plagiarism, whether intentional or unintentional, is a form of cheating that can lead to a failing grade for the course and to suspension from the University. As defined within UBC policies (<http://www.vpacademic.ubc.ca/integrity/policies.htm>), and as outlined in the UBC Calendar, plagiarism is a serious “form of academic misconduct in which an individual submits or presents the work of another person as his or her own”. As a form of intellectual theft, plagiarism involves taking the words, ideas or research of another without properly acknowledging the original author. Students need to become familiar with the many different forms that plagiarism can take, including accidental and intentional plagiarism. For more information see:

<http://help.library.ubc.ca/researching/academic-integrity/>
<http://www.indiana.edu/~wts/pamphlets/plagiarism.shtml>

Please take care to acknowledge your sources, including the Internet, using APA Style (American Psychological Association).

Non-sexist Language. Please incorporate and use *non-sexist language* [also called gender inclusive language] in your oral and written language. This language positions women and men equally, it does not exclude one gender or the other, nor does it demean the status of one gender or another. It does not stereotype genders [assuming all childcare workers are female and all police officers are male], nor does it use false generics [using mankind instead of human kind, or using man-made instead of hand crafted]. In addition, this language requires an attention to gender balance in personal pronouns, for example, use "he and she" rather than "he" or balance gendered examples in a paper, referring to both male and female examples. You may also recast subjects into the plural form, e.g., when a student raises his hand / when students raise their hands.

Person First Language. Please incorporate and use *person first language* in your oral and written language. Disabilities and differences are not persons and they do not define persons, so do not replace person-nouns with disability-nouns. Avoid using: the aphasic, the schizophrenic, stutterers, the hearing impaired. Also avoid using: cleft palate children, the hearing impaired client, the dyslexic lawyer, the developmentally disable adult. Instead, emphasize the person, not the disability, by putting the person-noun first: the lawyer who has dyslexia, persons who stutters, the children described as language impaired, the teacher with a hearing impairment.

Students with Disabilities. We strive to include all students, including those with special learning needs in this course. Please let us know (or have the UBC Disability Resource Center let us know) if you have a disability documented with the UBC Disability Resource Centre and/or if you need any special accommodations in the curriculum, instruction, or assessment of this course to enable you to fully participate. We adhere to *UBC Policy 73: Academic Accommodations for Students with Disabilities*. This information is located at: <http://www.students.ubc.ca/access/drc.cfm>. We will respect the confidentiality of the information you share and work with you so your learning needs are met.

**EDUC 500--Class Schedule
Winter Term 2, January 2012**

January 10 Introduction to Course

Assignment due: Library research backgrounder

January 17 Sources of Research Ideas; Selecting, Reading, and Evaluating Research Reports

Reading: Locke, et al., Chapters 2-4

In class activity: Library Workshop
Prep For Explaining Research Activity Part I

January 24 Perspectives on Research

Reading: Locke, et al., Chapter 1, 5 & 8

Explaining Research Activity Articles:
a. Hare & Pidgeon (2011)
b. Kanevsky (2011)

In class activity: Explaining Research—Shared Pair Activity #1
Prep For Explaining Research Activity #2

January 31 Research Ethics

Reading: Explaining Research Activity Articles:
a. Kelly, Pomerantz, & Currie (2005)
b. Wirkala & Kuhn (2011)

Freeman & Mathison (2009), pp. 19-36 & 69-85
(see course blog for pdf)

Research Ethics: A Guide for Graduate Students
(<http://www.grad.ubc.ca/handbook-graduate-supervision/research-ethics-guide-graduate-students>)

In class activity: Explaining Research—Shared Pair Activity #2

Assignment due: Research Topic Statement

February 7 Reviews of Research

Reading: Locke et al., Chapter 13

Assignments due: Written Critique of Research Review Study &
Explanation To Group

February 14 Quantitative Research (Part 1)

Reading: Locke et al., Chapter 6-7 & 9

Assignment due: Complete UBC Human Ethical Review
requirements: (1) Register with RISE; (2) Complete
the TCPS 2 Introductory Tutorial (CORE)
<http://research.ubc.ca/ethics/you-apply>

February 21 NO CLASS (mid-term break for UBC)

February 28 Quantitative Research (Part 2)

Reading: Locke et al, Appendix B (Statistics: A Beginners
Guide)

Assignment Due: Written Critique of Quantitative Study &
Explanation To Group

March 6 Qualitative Research (Part 1)

Reading: Locke et al., Chapter 10-12

March 13 NO CLASS—Library Research Week

March 20 Qualitative Research (Part 2)

Reading: TBD

Assignment due: Written critique of Qualitative Study & Explanation
To Group

March 27 NO CLASS—Library Research Week

April 3 Presentations/Wrap-up/Evaluations

Assignments due: Final Papers & Presentation To Group