Research Methodologies in Education

CENTRALIZED (A) DECENTRALIZED (B) DISTRIBUTED (C)
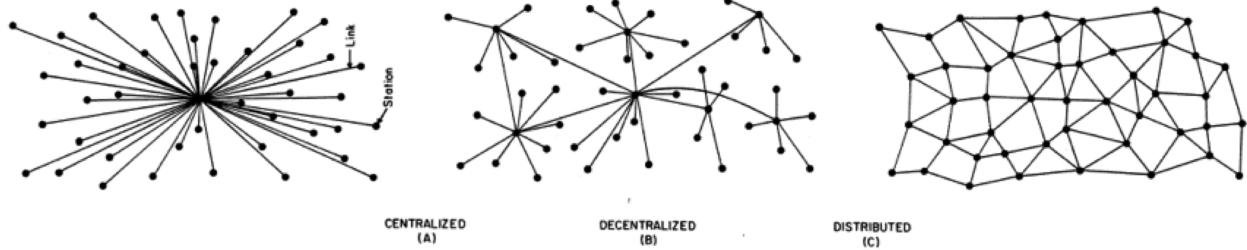
EDUC 500
University of British Columbia
2016

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Course Description and Valued Ends:

This course provides an introduction to educational research methods, methodologies and philosophies. Specifically, the course: (1) Familiarizes students with a cross-section of methods available to educational researchers (e.g., actor-network theory, arts-based, discourse & historical analyses, experiments, field studies, indigenous, phenomenology, surveys); (2) Explores resources a cross-section of media & technologies available to students for the conduct of research 2.0, including data collection, coding and analysis (e.g., databases & cybraries, data recording devices, OCR, translation, transcription and visualization apps, questionnaires, researchware, survey servers); (3) Familiarizes students with various rhetorical techniques for reading and writing research and analyzing paradigmatic orientations to inquiry. (4) Addresses challenges and regulation of research ethics and law.

Valued Ends of the Course:

The intention is to help you conceptualize, interpret, understand and do educational research. A major effort will be in helping you balance methodological practice with ethical, legal, and theoretical aspects. A second intention is to encourage you to refine a research design and proposal, continue progress through more advanced stages of inquiry and research, and develop qualitative reasoning.

Course Texts:

Babione, C. (Ed.). (2015). *Practitioner teacher inquiry and research*. San Francisco, CA: Jossey-Bass.

> **Reference:**
> Palys, T. & Atchison, C. (2014). *Research decisions: Quantitative, qualitative and mixed-method approaches* (5th ed.). Toronto, ON: Nelson.
>
> Gravetter, F. J. & Wallnau, L. B. (2014). *Essentials of statistics for the behavioral sciences* (8th ed.). Scarborough, ON: Wadsworth, Cengage Learning.

Assessment (see details below):	Deadline:
1. Participation (20%)	Ongoing
2. Research Topic (20%)	8 July
3. Literature Review (60%)	24 July

Operational Definition of Letter Grade Categories
(EDCP, Revised, 2008)

A level - Good to Excellent Work
A+ (90-100%) A very high level of quality throughout every aspect of the work. It shows the individual (or group) has gone well beyond what has been provided and has extended the usual ways of thinking and/or performing. Outstanding comprehension of subject matter and use of existing literature and research. Consistently integrates critical and creative perspectives in relation to the subject material. The work shows a very high degree of engagement with the topic.

A (85-89%) Generally a high quality throughout the work. No problems of any significance, and evidence of attention given to each and every detail. Very good comprehension of subject and use of existing literature and research. For the most part, integrates critical and creative perspectives in relation to the subject material. Shows a high degree of engagement with the topic.

A- (80-84%) Generally a good quality throughout the work. A few problems of minor significance. Good comprehension of subject matter and use of existing literature and research. Work demonstrates an ability to integrate critical and creative perspectives on most occasions. The work demonstrates a reasonable degree of engagement with the topic.

B level - Adequate Work
B+ (76-79%) Some aspects of good quality to the work. Some problems of minor significance. There are examples of integrating critical and creative perspectives in relation to the subject material. A degree of engagement with the topic.

B (72-75%) Adequate quality. A number of problems of some significance. Difficulty evident in the comprehension of the subject material and use of existing literature and research. Only a few examples of integrating critical and creative perspectives in relation to the subject material. Some engagement with the topic.

B- (68-71%) Barely adequate work at the graduate level.

NOTE: For UBC's Faculty of Graduate Studies (FOGS), a final mark below 68% for Doctoral students and below 60% for Masters students is the equivalent of a Failing mark.

C & D level - Seriously Flawed Work
C *(55-67%)* Serious flaws in understanding of the subject *material.* Minimal integration of critical and creative perspectives in relation to the subject material. Inadequate engagement with the topic. Inadequate work at the graduate level.
D level
D (50-54%)
F level - Failing Work
F (0-49%)

❑ **Academic Honesty and Standards, and Academic Freedom:** *UBC Calendar 2016/17*

❑ **Policies and Regulations (Selected):** http://www.students.ubc.ca/calendar

❑ **Academic Accommodation for Students with Disabilities:** Students with a disability who wish to have an academic accommodation should contact the Disability Resource Centre without delay (see UBC Policy #73 www.universitycounsel.ubc.ca/ policies/policy73.pdf).

Course Schedule

Date	Online / F2F	Activity	Assignment	Topics (see Readings next section)
Day 1	F2F	#1 - #3	Course Intro	**Course introduction / Research 2.0 Etymology, History and Philosophy of Research Literature Reviews**
Day 2	F2F	#4 - #8	Readings (Text & Topics #3-4) & Assignments	**Research Ethics & Law Research Participants (Human & Non-Human Subjects) Research Proposals & Research Policy Literature Reviews, Theoretical Frameworks**
Day 3	F2F	#3 - #9	Readings (Text & Topics #5) & Assignments	**Research 2.0: Research Media and Technologies**
Day 4	F2F	#10 - #12	Readings (Text & Topics #6) & Assignments	**Research Media and Technologies Research Methods and Methodologies**
Day 5	F2F	#10 - #12	**First Assignment Due**	**Research Media and Technologies Research Methods and Methodologies Data Collection, Coding, Analysis & Visualization**
Day 6	F2F	#13 - #17	Readings (Text & Topics #8-9) & Assignments	**Research Media and Technologies Research Methods and Methodologies Data Collection, Coding, Analysis & Visualization**
Day 7	F2F	#18 - #21	Readings (Text & Topics #10) & Assignments	**Research Media and Technologies Research Methods and Methodologies Data Collection, Coding, Analysis & Visualization**
Day 8	F2F	#22 - #24	Readings (Text & Topics #13) & Assignments	**Research Media and Technologies Research Methods and Methodologies Data Collection, Coding, Analysis & Visualization**
Day 9	F2F	#25 - #27	Readings (Text & Topics #14) & Assignments	**Research Methods and Methodologies Data Collection, Coding, Analysis & Visualization Research Communication**
Day 10	F2F	#27	**Final Assignment**	**Research Communication**

Course Major Topics & Readings

Practitioner Teacher Inquiry & Research **(Babione, 2015) Schedule:**

Date	Day	Chapter
	Day 1	Chapter 1: Developing a Concept of PTI&R
	Day 2	Chapter 2: School Change & Teacher Inquiry Identity
	Day 3	Chapter 3: Inquiry Communities for Learning and Change
	Day 4	Chapter 4: Where We Begin Practitioner Teacher Inquiry
	Day 5	Chapter 5: Guidelines for Collecting Data
	Day 6	Chapter 6: Analyzing, Interpreting, and Managing Inquiry Study
	Day 7	Chapter 7: Sharing and Changing School Culture
	Days 8-10	Chapter ?: Choose **one** from chapters 8-15 and read & analyze in depth
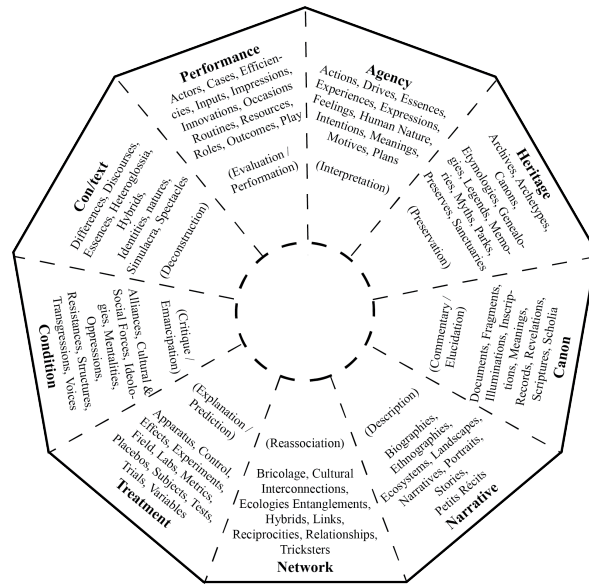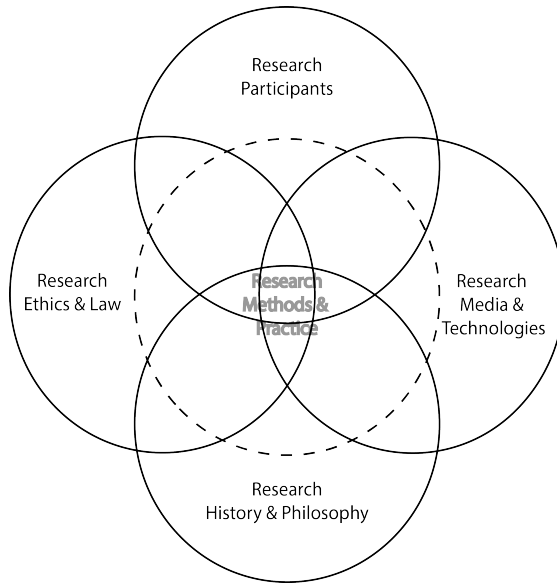
Etymology, History and Philosophy of Research

Topic 1: Research Semantics and Rhetoric

Topic 2: Histories of Research

Topic 3: Philosophies of Research and Epistemology

Reading (Paradigms):

Guba, E. G. & Lincoln Y. S. (1994). Competing paradigms in qualitative research. In N. Denzin, K. & Y. S. Lincoln (Eds.), *Handbook of qualitative research* (pp. 105-117). Newbury Park, CA: Sage Publications.

Reference:

Sipe, L. & Constable, S. (1996). A chart of four contemporary research paradigms: Metaphors for the modes of inquiry. *Taboo, 1*(2), 153-162.

van Manen, M. (1977). Linking ways of knowing with ways of being practical. *Curriculum Inquiry, 6*(3), 205-228.

Writing & Style, Theory & Theoretical Frameworks, Literature Reviews

Topic 4: Writing, Style, Literature Reviews & Theoretical Frameworks

Readings:

Boote, D. N. & Beile, P. (2005). Scholars before researchers: On the centrality of the dissertation literature review. *Educational Researcher, 34*(6), 3-15.

Gill, T. (2014). The benefits of children's engagement with nature: A systematic literature review. *Children, Youth and Environments, 24*(2), 10-34.

Reference:

Pencil, M. (1976). Salt passage research: The state of the art. *Journal of Communication, 26*(4), 31-36.

Rickinson, M., Dillon, J., Teamey, K., Morris, M., Choi, M. Y., Sanders, D., & Benefield, P. (2004). *A review of research on outdoor learning*. London, UK: National Foundation for Educational Research and King's College London.

Research Ethics & Law

Topic 5: Research Ethics & Law

Reading:

Cico, S. J., Vogeley, E., & Doyle, W. J. (2011). Informed consent language and parents' willingness to enroll their children in research. *IRB: Ethics and Human Research, 33*(2), 6-13.

Reference:

AERA. (2011). Code of ethics. *Educational Researcher, 40*(3). 145–156.

Graham, A., Powell, M., Taylor, N., Anderson, D., & Fitzgerald, R. (2013). *Ethical research involving children*. Florence, Italy: UNICEF Office of Research – Innocenti. Retrieved from: http://childethics.com/wp-content/uploads/2013/10/ERIC-compendium-approved-digital-web.pdf

Lowman, J. & Palys, T. (2000). Ethics and institutional conflict of interest: The research confidentiality controversy at Simon Fraser University. *Sociological Practice: A Journal of Clinical and Applied Sociology 2*(4), 245-255.

Research Participants (Human & Non-Human Subjects)

Topic 6: Participation, Sampling and Recruitment
Reading:
Musante, K. (2015). Participant observation. In H. R. Bernard & C. C. Gravlee (Eds.), *Handbook of methods in cultural anthropology* (pp. 251-293). London, UK: Rowman & Littlefield.

Research Problems & Research Policy: Funding, Research Topics, Designs & Proposals

Topic 7: Searching and Filtering
Topic 8: Dimensioning Phenomena: Tracking, Mapping, & Framing
Reading: Mason, C. (2011). Facet methodology: The case for an inventive research orientation. *Methodological Innovations Online, 6*(3), 75-92. Retrieved http://www.methodologicalinnovations.org.uk/wp-content/uploads/2013/11/MIO63Paper31.pdf

Topic 9: Research Problems & Funding, Audiences, Topics & Proposals
Reading:
University of Sydney. (2001). Writing a research proposal. Sydney: Learning Centre. Retrieved http://sydney.edu.au/stuserv/documents/thesisproposal.pdf

Research 2.0: Research Media and Technologies

Topic 10: Research Applications and Devices
Reading:
Basit, T. N. (2003). Manual or electronic? The role of coding in qualitative data analysis. *Educational Research*, *45*(2). 145-154.

Palys, T. & Atchison, C. (2009). *Qualitative research at the gates of the digital age: Obstacles and opportunities*. Keynote address for the 10th Annual Advances in Qualitative Methods Conference of the International Institute for Qualitative Methodology. Vancouver, October 2009.

Topic 11: Research Networks and Newstories
Topic 12: Big Data/bases, Analytics and Semantic Web

Research Methods, Methodologies & Psychometrics

Topic 13: Qualitative Methods
Readings:
Wolf, M. (1992). Writing ethnography: The poetics and politics of culture. In *A thrice-told tale: Feminism, postmodernism, and ethnographic responsibility* (pp. 127-139). Stanford, CA: Stanford University Press.

Lather, P. (1993). Fertile obsession: Validity after postmodernism. *Sociological Quarterly, 34*(4), 673-693.

Topic 14: Quantitative Methods
Readings:
Gravetter, F. J. & Wallnau, L. B. (2013). Introduction to statistics. In *Essentials of statistics for the behavioral sciences* (8th ed.) (pp. 4-36). Scarborough, ON: Wadsworth, Cengage Learning.

Gravetter, F. J. & Wallnau, L. B. (2013). Frequency distributions. In *Essentials of statistics for the behavioral sciences* (8th ed.) (pp. 37-58). Scarborough, ON: Wadsworth, Cengage Learning.

Topic 15: Mixed Methods

Data Collection, Coding, Analysis & Visualization

Topic 16: Instrumentation and Protocols
Topic 17: Data Collection
Topic 18: Data Coding, Analysis, and Visualization

Reference:
Bailey, J. & Pregill, L. (2014). Speak to the eyes: The history and practice of information visualization. *Art Documentation: Journal of the Art Libraries Society of North America, 33*(2), 168-191.
Saldana, J. (2009). *The coding manual for qualitative researchers*. Thousand Oaks, CA: Sage.

Research Engagement, Knowledge Mobilization & Research Metrics & Impact
Topic 19: Research Communication, Writing and Reporting, and Rating (Bibliometrics)
Topic 20: Research Presenting and Research Rhetoric

Course Assignments

Participation:
Participation is valued at 20% of your final grade. We refer to the scholarly level of participation as **academic conversation**, which entails a variety of things including academic conversation, articulation and presentation. Participation is interdependent with preparation. **Read for Meaning *along with Purpose…***

Participation
Low------------Avg------------High
Appropriately and accurately articulates key constructs and themes in readings, etc.
1---------------3---------------5
Reveals an attempt to synthesize knowledge of research methodologies (readings, etc.).
1---------------5.5--------------10
Advances collective knowledge and consciousness by engaging with authors, peers, and instructors
1---------------3---------------5
Total: xx / 20

Assignments:
1. Research Topic, Purpose, Problem, and Key Concepts (20%)
This is a restatement of your Inquiry or Research Proposal: Write a clear research topic statement (drawn from your research proposal), including the Introduction, Inquiry Question(s) or Problem, Inquiry Purpose, and brief analysis of the Key or Critical Concepts. *See *Thesis and Dissertation Proposal Guide*; See outlines. (2 pages, double-spaced)

2. Literature Review (60%)
Drawing on carefully selected, relevant articles, books, etc. (sources) write a critical review essay to explore the topic, or support either the theoretical framework or the methodological approach to investigating your research problem. Keep in mind that this is a critical literature review essay, not a descriptive report of sources. Construct the literature review with a beginning (introduction), middle (primary argument and evidence), and end (conclusion). The beginning sets the necessary context, categories and limits, tone, and overall argument or thesis (See outlines).

Literature Review Format

Due	Section	Pages
	Title	
	1. Overview / Introduction of subject, theories and issues involved • Type of literature review (theory, methodology, policy, quantitative research, qualitative research, etc.) • Scope: what types of resources are best? • Search for information: wide enough and narrow enough	**(1 page)**
	2. Categories selected as natural divides of thesis and reviewed sources • Sources organized around the research question or thesis • Areas of controversy or debate included	**(1 page)**
	3. Analysis and interpretation of overarching similarities and variances of ideas: Include • Provenance: credentials, evidence • Objectivity: authors' point of view and representation of other views • Persuasiveness: which theses are most convincing v least? • Value: Does this work contribute in a significant way to understanding the subject?	**(12 pages)**
	4. Summation or conclusions of thesis generating idea in context with materials reviewed • What is known and not known • Areas of further research • Relevant, appropriate and, useful • Possible arguments might be: a) there is a lack of literature in the area; b) there are conflicting reports in the literature and clarification is required; your work is an extension of existing studies in terms of scope and context.	**(2-5 pages)**
	References	**Attach**
	Appendices (e.g. Glossary, Comparative Tables)	**Attach**

Literature Review

Quality of Introduction: Discussion of issues, general reason for selection of topic, how the introduction prepares the reader for what is to follow, etc.	10
Quality of Substance: Relevance of writing in discussion of research issues as they relate to the topic. General quality of outline in terms of logical, informative discussion & development.	10
Quality of Writing, Style, Communication of Concepts: Grammatical, spelling, punctuation errors; overall organization and readability; developed logically, organized well; APA format followed; clean, readable, layout.	10
Critical Analysis: Discussions of various issues that relate to the topic; discussion/analyses and synthesis of pros and cons of the sources used.	20
Synthesis of Literature Review: Discussion of how the literature review sources relate to thesis topic (in broad, general terms, in terms of purpose/problems, etc.).	10
Total	60

Format: 6,000 words, double-spaced + References + Appendices