

Course Information	<p>EDUC 6570—Introduction to Educational and Psychological Research¹</p> <p>Wednesday, 2:00 p.m. - 4:30 p.m.</p> <p>HPER 112</p>
Instructor Information	<p>Instructor: David F. Feldon, Ph.D.</p> <p>Office: EBL5 243</p> <p>Phone: (435) 797-0556</p> <p>Office Hrs: By appointment</p> <p>E-mail: david.feldon@usu.edu</p>
Required Texts	<p>Johnson, R. B., & Christensen, L. (2016). <i>Educational research: Quantitative, qualitative, and mixed approaches (6th ed.)</i>. Los Angeles, CA: SAGE Publications.</p> <p>Ravitch, S. A., & Riggan, M. (2012). <i>Reason & rigor: How conceptual frameworks guide research</i>. Los Angeles, CA: SAGE.</p> <p>Additional required readings available via Canvas.</p>
Purpose	<p>The purpose of this course is to introduce and examine in depth contemporary empirical approaches to inquiry in educational research. Course content will include the theoretical assumptions grounding various methodologies, their impact on study design, data analysis, and interpretation of results. Successful completion of the course and its assignments will prepare students to develop and defend a dissertation proposal of high quality.</p>
Objectives	<p>Students in this course will learn to:</p> <ol style="list-style-type: none"> 1. Explain the major elements and foundational assumptions of current educational research methods. 2. Critique the knowledge claims of published studies on the basis of their designs. 3. Identify effective research questions. 4. Select appropriate methodologies for the investigation of research questions. 5. Create a research proposal.

¹ The instructor reserves the right to modify the syllabus as needed during the course to meet students' learning needs.

Expectations of Students	<ul style="list-style-type: none"> • Actively engage with the course material and find ways to make it relevant to your professional and academic needs and goals • Challenge statements that are confusing or with which you disagree • Engage in class dialogue with thoughtfulness, openness, and respect • Attend class having read and taken notes on the readings due • Work to develop your writing and speaking skills throughout the course
Expectations of Instructor	<ul style="list-style-type: none"> • Available during and outside of class time to address questions and concerns • Will respond to messages and emails within 48 hours • Provide clear explanations of research principles and methodologies • Conduct an intellectually challenging and rigorous course
Absences	<p>If you find it absolutely necessary to be absent from class because of illness or an emergency, you are responsible to master <i>all</i> information presented during your absence. Do not ask the instructor to repeat important information—identify a classmate who will help you.</p> <p>It is important to understand that the purpose of the lectures is not to explain the readings. While time will be spent on clarification, most of the material presented in class will serve as an extension of relevant ideas and issues. As such, attendance and participation in class will be necessary aspects of the learning process, in addition to the readings. Consequently, absences should be avoided to prevent you from falling behind and missing information for which you will be responsible.</p>
Incompletes	Please note that I only give incomplete grades in rare and exceptional cases.
Administrative Issues	All administrative issues will be handled according to established USU and CEHS policies.
Special Needs	Any student requiring accommodations based on a disability is required to register with the Office of Student Disability Services each semester. A letter of verification for approved recommendations can be obtained through OSD.

Grading

Papers more than one week late will not be accepted unless a student has experienced an extreme emergency (contact the instructor). A paper received from one day to seven days late will receive a one full letter grade reduction.

Discussion facilitations cannot be made up. Only in the most extreme individual circumstances will the instructor modify this policy.

Keep in mind a course grade of “F” will be given to any student who submits a term paper that is not original (i.e. when any part of the paper is written by someone else, plagiarized and/or purchased).

Course Requirements

Percent of Grade

Class Participation and Minor Assignments	10%
Discussion Facilitation	20%
Article Critique	20%
Research Proposal	50%

Assignments

Discussion Facilitation:

On a date selected during the first class meeting, you and a partner will choose one class to **take the lead on discussion facilitation** for all assigned readings. The purpose of the assignment is not to provide a summary. Instead, you must understand the collective readings at a deep level to identify the central issues and controversies and formulate driving questions to serve as the focus of the discussion for that day. In addition, you must **locate a journal article relevant to the discussion, make copies for the class, and be prepared to use it as a positive and/or negative example of key concepts or methods.** The instructor will provide support as necessary both prior to and during the facilitation to ensure a successful interaction for the class as a whole. Credit is given on the basis of evident preparation and comprehension of core issues in the readings discussed, not on the success of the class interaction itself. Credit/No Credit.

Critique. Select a published mixed method study in your area of interest and critique it applying concepts from the course. The critique will be 2-3 pages, single-spaced. The article critiqued must be included with the critique submission. Graded.

Research Proposal:

A research proposal of **approximately 12 single-spaced pages** in length (excluding references) will be required in this course. This is a departure from APA format, but please make the adjustment. You can choose any empirical research topic within the realm of education for your proposal that is appropriate to serious academic inquiry. The paper will entail a literature review sufficient to justify the research questions/hypotheses and variables identified, but the major thrust will be a description and validation of the methods. The research question and methodology selected **must be approved by the instructor in an email**. See the course schedule for approval timeline. Graded.

Structure of the Paper

When you have selected your research question and method, send a one paragraph description of the paper you are proposing to write to feldon@gwm.sc.edu. I will review your proposal and get back to you with either approval or a suggested revision (I do not want to control your interest, only to keep you out of trouble). Do not start your review until I have returned e-mail with my approval of your topic. Keep this e-mail and submit a copy of it with your paper.

Date	Topic	Assignment Due
August 30	Introduction Course Expectations Operational Definitions and Framing Research Questions Structure of scientific argument Data analysis: Method vs. Methodology	
September 6	Ontologies, Epistemologies, and Methodologies Facilitators:	Johnson & Christensen (2016)—chs. 1-2; Nuthall (2005)
September 13	Framing Research Problems and Questions Conceptual Frameworks Facilitators:	Johnson & Christensen (2016)—chs. 4; Ravitch & Riggan (2011)—chs. 1-3
September 20	Research Ethics Anatomy of a Research Proposal Facilitators:	Johnson & Christensen (2016)—chs. 5-6 Email research question and general methodological approach for paper.
September 27	Internal and external validity Measurement and Assessment Sampling Facilitators:	Johnson & Christensen (2016)—ch. 7, 10-11
October 4	Experimental, quasi-experimental and Correlational designs Facilitators:	Johnson & Christensen (2016)—chs. 12-14
October 11	Qualitative Approaches Facilitators:	Johnson & Christensen (2016)—chs. 15-16
October 18	NO CLASS	Critiques due via email by midnight
October 25	Mixed Methods Facilitators:	Johnson & Christensen (2016)—ch. 17; Feldon & Kafai (2008); Feldon & Tofel-Grehl (in press)
November 1	Design-based Research Facilitators:	The Journal of Learning Sciences Special Issue (Barab & Squire, 2004; Collins et al., 2004; Fishman et al., 2004; diSessa & Cobb, 2004; Dede, 2004; Kelly, 2004)

November 8	Microgenetic designs Facilitators:	Feldon (2010) Siegler (2006) Yan & Fischer (2002)
November 15	TBD	
November 22	NO CLASS	
November 29	TBD	
December 6	TBD	
December 13	NO CLASS—FINAL PAPERS DUE	Final Paper due via email by midnight

**Required
References**

Readings

Readings will be posted to course Blackboard site and available in PDF format for download.

Barab, S., & Squire, K. (2004). Design-based research: Putting a stake in the ground. *The Journal of the Learning Sciences, 13*(1), 1-14.

Collins, A., Joseph, D., & Bielaczyc, K. (2004). Design research: Theoretical and methodological issues. *The Journal of the Learning Sciences, 13*(1), 15-42.

Dede, C. (2004). If design-based research is the answer, what is the question? A commentary on Collins, Joseph, and Bielaczyc; diSessa and Cobb; and Fishman, Marx, Blumenthal, Krajcik, and Soloway in the JLS special issue on design-based research. *The Journal of the Learning Sciences, 13*(1), 105-114.

diSessa, A. A., & Cobb, P. (2004). Ontological innovation and the role of theory in design experiments. *The Journal of the Learning Sciences, 13*(1), 77-103.

Feldon, D. F. (2010). Do expert researchers tell it like it is? A microgenetic analysis of research strategies and self-report accuracy. *Instructional Science, 38*, 395-415.

Feldon, D. F., & Kafai, Y. B. (2008). Mixed methods for mixed reality: Overcoming methodological challenges to understand user activities in virtual worlds. *Educational Technology Research and Development, 56*(5-6), 575-593.

Feldon, D. F., & Tofel-Grehl, C. (in press). Phenomenography as a foundation for mixed models research. *American Behavioral Scientist*.

Fishman, B., Marx, R. W., Blumenfeld, P., Krajcik, J., & Soloway, E. (2004). Creating a framework for research on systemic technology innovations. *The Journal of the Learning Sciences*, 13(1), 43-76.

Kelly, A. (2004). Design research in education: Yes, but is it methodological? *The Journal of the Learning Sciences*, 13(1), 115-128.

Nuthall, G. (2005). The cultural myths and realities of classroom teaching and learning: A personal journey. *Teachers College Record*, 107(5), 895-934.

Siegler, R. S. (2006). Microgenetic analyses of learning. In D. Kuhn, & R. S. Siegler (Eds.), *Handbook of child psychology (6th ed.)* (pp. 464-510). Hoboken, NJ: John Wiley & Sons, Inc.

Yan, Z., & Fischer, K. W. (2002). Always under construction: Dynamic variations in adult cognitive microdevelopment. *Human Development*, 45, 141-460.