

**George Mason University
Graduate School of Education**

EDRS 810 (3 credits)

Problems and Methods in Educational Research

Spring 2010

Thursday, 7:20-10:00, Innovation Hall 319

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Hours: by appointment

COURSE DESCRIPTION

This is an advanced course in the interpretation and application of education research methods. Emphasizes comparison of alternative philosophies of research, ways of formulating questions/hypotheses, research plans, and analysis procedures. Students evaluate existing studies and investigate a range of research approaches.

Prerequisites: Admission to the Ph.D. program or permission of instructor.

COURSE OBJECTIVES

Upon successful completion of the course, students should:

- be able to understand what research is, and how it differs from other intellectual and practical activities in education;
- be able to understand the major approaches to educational research, and the implications of the differences between these for doing and evaluating research in education;
- be able to find, understand, evaluate, and apply published research that is relevant to their field;
- be able to design the basic components of small-scale research studies, both quantitative and qualitative, including
 - identifying a research problem to study
 - formulating the purposes of the study
 - developing a conceptual framework for the study
 - generating appropriate research questions
 - planning relevant and feasible methods of sampling, data collection, and analysis
 - anticipating plausible validity threats, and thinking of ways to deal with these
 - dealing appropriately with ethical issues in the research

- be able to write clearly and coherently about the conceptual framework, questions, and methods used in a research study;
- be able to use the writing style described in the Sixth Edition of the *Publication Manual of the American Psychological Association* (APA) for writing term and research papers;
- be able to reflect on their actions and choices and use that reflection to inform practice;
- be able to present written research results clearly and coherently.

COURSE REQUIREMENTS

*The following course requirements will be explained in detail during class meetings.

1. Shifting Research Genres Paper

Students will find a well designed qualitative study of a particular phenomenon and propose ways of investigating the phenomenon using quantitative methods. In their paper they will describe how research questions might change, a new methodology, including subjects, data gathering techniques, data sources, and data analyses. They will also explore the question of how new insights might be gleaned from this alternative approach.

Students will find a well designed quantitative study of a particular phenomenon and propose ways of investigating the phenomenon using qualitative methods. In their paper they will describe how research questions might change, a new methodology, including subjects, data gathering techniques, data sources, and data analyses. They will also explore the question of how new insights might be gleaned from this alternative approach.

2. Shifting Research Genres Presentation

Students will make a short power point presentation to the class over their Shifting Research Genres paper. The slides will be submitted to the professor and handouts from the slides will be distributed in class. These presentations will occur during the final two class sessions.

3. Article Discussion Leadership

Working with a partner, students will: (1) read, analyze, and interpret a research article for their peers; and (2) engage the class in critical dialog about the features and quality of the research. Article discussants will identify a research article that conforms to a particular genre of research and make it available to their classmates at least one week in advance.

4. Mandatory Training for Persons Conducting Research Using Human Subjects

Students will be asked to complete Mandatory Training for Persons Conducting Research Using Human Subjects. Information is available online:

<http://research.gmu.edu/ORSP/HumanTraining.html>. The training takes between two and five hours and can be accessed from: <http://www.citiprogram.org>. A copy of your completion certificate must be submitted to the professor for credit to be awarded.

5. Completion of Human Subjects Proposal

Students will write a human subjects proposal to accompany a quantitative or qualitative intervention research method section. The materials are available on the web site: <http://research.gmu.edu/ORSP/HumanFormsAndInstructions.html>.

6. Review of the Literature

Based on the topic in the human subjects proposal, students will review the professional literature and write a review. The review should have an introduction and logical organization that ties the studies and professional opinion together into a cohesive rationale for conducting the proposed study with human subjects.

7. In Class Work

Students will be asked to work individually or in small groups on in class work during each session. These activities are listed on the syllabus and may be amended throughout the semester. For example, students will take online chapter tests at the Pearson site that accompanies the textbook. They will also analyze research articles based on particular research genre under consideration. With these articles, students will learn to identify: (a) the purpose; (b) the research questions; (c) the research design, including independent and dependent variables when relevant; (d) the participants; (e) the materials; (f) the data sources, outcome measures and/or dependent variables or measures; (g) the research procedures; (h) the data analysis procedures; (i) the results; and (j) implications, if any from the study.

***Bring flash or other relevant media to class in order to save work completed during class.**

8. Class Participation and Attendance Policy

Because of the importance of lecture and discussion to your total learning experience, students are encouraged to attend and participate in class regularly. Attendance, punctuality, preparation, and active contribution to small and large group efforts are essential and will account for 10% of the course grade. Students who must miss a class need to notify the professor (preferably in advance) and are responsible for completing all assignments and readings for the next class. The exceptions to this policy are when class is canceled by GMU or due to the professor's absence.

EVALUATION

Shifting Research Genres Paper	40 pts total (20 points for each section)
Shifting Research Genre Presentation	10 pts
Human Subjects on line training completion	5 pts
Human Subject Proposal	10 pts
Article Discussion Leadership	10
In Class Work, Class Participation and Attendance	10 Pts
Review of the Literature	15 pts
TOTAL	100 pts

Final grades are calculated as a percent of total points earned:

A	= 93% - 100%	93 -100 pts
A-	= 90% - 92%	90 – 92 pts
B+	= 87% - 89%	87 – 89 pts
B	= 80% - 86%	80 – 86 pts
C	= 79% and lower	79 – fewer pts

REQUIRED TEXTBOOK

Creswell, J.W. (2008). *Educational Research: Planning, conducting, and evaluating quantitative and qualitative research* (3rd ed.). Upper Saddle River, NJ: Pearson Education.

This text has a Companion Website that will be employed in this class:
<http://www.prenhall.com/creswell>

Recommended Text

American Psychological Association. (2010). *Publication manual of the American Psychological Association* (6th ed.). Washington, DC: Author.

GENERAL INFORMATION

Email Access

Students must have access to email and the Internet, either at home, work, or on the GMU campus. GMU provides students with free email accounts that must be accessed for information sent from the university or the Graduate School of Education. Go to <http://mason.gmu.edu/> for information on accessing email.

GSE Statements of Expectations

The Graduate School of Education (GSE) expects that all students abide by the following:

Students are expected to exhibit professional behavior and dispositions. Professional dispositions are expected of all members of the GSE community. Please go to <http://gse.gmu.edu/facultystaffres/profdisp.htm> for a listing of these dispositions.

Students must follow the guidelines of the University Honor Code. See http://www.gmu.edu/catalog/apolicies/#TOC_H12 for the full honor code.

Students must agree to abide by the university policy for Responsible Use of Computing. See <http://mail.gmu.edu> and click on Responsible Use of Computing at the bottom of the screen.

Students with disabilities who seek accommodations in a course must be registered with the GMU Disability Resource Center (DRC) and inform the instructor, in writing, at the beginning of the semester. See www.gmu.edu/student/drc or call 703-993-2474 to access the DRC.

Tentative Agenda

DATE	TOPIC	ASSIGNED READING DUE	WORK DUE
1. 1/21	Review syllabus- Introduction to the Field of Educational Research; Introduction to GMU Policy for Human Subjects		SET UP PRENTICE HALL WEB SITE www.prenhall.com/creswell http://www.citiprogram.org http://research.gmu.edu/ORSP/HumanFormsAndInstructions.html
2. 1/28	Overview of Educational Research	Chapter 1, 2	http://www.citiprogram.org review on line module prior to class http://research.gmu.edu/ORSP/HumanFormsAndInstructions.html In class work: online chapter tests; research article analysis
3. 2/4	Guest Wendy Mann: How to use the relevant data bases effectively at the GMU library Meet at class time in the Johnson Center Library Instruction room	Johnson Center Library Instruction Room - 2nd floor	
4. 2/11	Identifying Research Problems; Reviewing the Literature Specifying a Purpose; Research Questions	Chapters 3, 4, and 5	In class work: online chapter tests; research article analysis Sandy Sandford, HSRB, to speak to class.
5. 2/18	Collecting, Analyzing and Interpreting Quantitative Data.	Chapters 6 and 7	In class work: online chapter tests; research article analysis ADL Mandatory Training for Persons Conducting Research Using Human Subjects must be completed and certification document submitted
6. 2/25	Analyzing Quantitative Data	Chapter 7	In class work: online chapter tests; research article analysis ADL
7. 3/4	Experimental and Quasi-Experimental Designs Correlational and	Chapters 11,12 & 13	In class work: online chapter tests; research article analysis ADL

Brozo EDRS810 syllabus

	Survey Designs		
8. 3/11	Spring Break		No Class Meeting
9. 3/18	Grounded Theory, Ethnographic and Narrative Designs	Chapters 14, 15 & 16	In class work: online chapter tests; research article analysis ADL Quantitative or Qualitative Research Method and matching Human Subject proposal due
10. 3/25	Analyzing and Interpreting Qualitative Data	Chapters 8 and 9	In class work: online chapter tests; research article analysis ADL
11. 4/1	Analyzing and Interpreting Qualitative Data	Chapters 8 and 9	In class work: online chapter tests; research article analysis ADL Review of Literature Due
12. 4/8	Mixed Method and Action Research Designs	Chapters 17 & 18	In class work: online chapter tests; research article analysis ADL
13. 4/15	TBA		
14. 4/22	Individual Consultations on Shifting Research Genre Projects		Student Consultations
15. 4/29	Shifting Research Genres Presentations		Class Presentations of Shifting Research Genres
16 5/6	Shifting Research Genres Presentations		Class Presentations of Shifting Research Genres

