

**George Mason University
Graduate School of Education**

EDRS 810-002 (3 credits)

Problems and Methods in Educational Research

Spring 2011

Wednesdays, 4:30-7:20, Innovation Hall 129

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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 write clearly and coherently a professional literature review related to a proposed research plan;
- 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 research results and how they might inform educational practice and policy;
- 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. 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 three 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.

2. Completion of Human Subjects Proposals

Students will write a human subjects proposal to accompany a quantitative or a qualitative research method section. The materials are available on the web site:

<http://research.gmu.edu/ORSP/HumanFormsAndInstructions.html>.

3. Method Section

Students will write a more complete method section based on the HSRB proposal. The method section will contain information relevant to the specific type of research design (quantitative or qualitative).

1. Statement of purpose and research questions (1-2 pages)
2. Method (5-6 pages)
 - Research design
 - Participants and setting
 - Materials
 - Data sources
 - Procedures (proposed data collection process)
 - Proposed preliminary data analyses
3. References

4. Shifting Research Genre Presentation

Students will use their methods section, whether quantitative or qualitative, and propose ways of investigating the phenomenon using an alternative research genre. Thus, if a study uses quantitative methods, a proposal would be made for using qualitative methods; and vice-versa. In the presentations students will describe how research questions might change, a new methodology, including subjects, data gathering techniques, data sources, and data analyses. Students will also explore the question of how new insights might be gleaned from this alternative approach.

Students will make a short power point presentation to the class over the research genre shift. 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 class sessions.

5. 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, as well as the implications for practice and policy. Article discussants will make their article available to the professor and classmates at least one week in advance.

6. Chapter Self-Assessments

Students will be responsible for completing the multiple-choice self-assessments over the *required* chapters in Creswell. These will be taken online and a satisfactory score will be submitted to the professor using the emailing forwarding function at the end of each scored assessment.

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

***All assignments will be submitted electronically. Redrafted assignments must include tracked changes.**

EVALUATION

Human Subjects on line training completion	5 pts
Human Subjects Proposal	20 pts
Method Section	25pts
Shifting Research Genre Presentation	20pts
Article Discussion Leadership	20 pts
Chapter Self-Assessments	10 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 for chapter self-assessments:
<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.

COLLEGE OF EDUCATION AND HUMAN DEVELOPMENT

Student Expectations

- Students must adhere to the guidelines of the George Mason University Honor Code [See <http://academicintegrity.gmu.edu/honorcode/>].
- Students with disabilities who seek accommodations in a course must be registered with the George Mason University Office of Disability Services (ODS) and inform their instructor, in writing, at the beginning of the semester [See <http://ods.gmu.edu/>].
- Students must follow the university policy for Responsible Use of Computing [See <http://universitypolicy.gmu.edu/1301gen.html>].
- Students are responsible for the content of university communications sent to their George Mason University email account and are required to activate their account and check it regularly. All communication from the university, college, school, and program will be sent to students solely through their Mason email account.
- Students must follow the university policy stating that all sound emitting devices shall be turned off during class unless otherwise authorized by the instructor.
- Students are expected to exhibit professional behaviors and dispositions at all times.

Campus Resources

- The George Mason University Counseling and Psychological Services (CAPS) staff consists of professional counseling and clinical psychologists, social workers, and counselors who offer a wide range of services (e.g., individual and group counseling, workshops and outreach programs) to enhance students' personal experience and academic performance [See <http://caps.gmu.edu/>].
- The George Mason University Writing Center staff provides a variety of resources and services (e.g., tutoring, workshops, writing guides, handbooks)

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intended to support students as they work to construct and share knowledge through writing [See <http://writingcenter.gmu.edu/>].

- For additional information on the College of Education and Human Development, Graduate School of Education, please visit our website [See <http://gse.gmu.edu/>].

Tentative Agenda

DATE	TOPIC	ASSIGNED READING DUE	CLASS ACTIVITIES
1. 1/26	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 Guest presenter: Melissa Mayville
2. 2/2	Overview of Educational Research How to write a successful HSRB proposal	Chapters 1 and 2	Lecture/discussion Chapters 1 and 2 Quizzes due
3. 2/9	Identifying Research Problems; Reviewing the Literature Specifying a Purpose; Research Questions	Chapters 3, 4, and 5	In class work: research article analysis Professor Models ADL Chapters 4 and 5 Quizzes due
4. 2/16			TBA Mandatory Training for Persons Conducting Research Using Human Subjects must be completed and certification document submitted
5. 2/23			Wendy Mann – GMU Library – Electronic Research Tools
6. 3/2			TBA
7. 3/9	Collecting, Analyzing and Interpreting Quantitative Data.	Chapters 6 and 7 ADL article	Lecture/discussion ADL Human Subjects Proposal due Chapter 6 and 7 Quizzes due
8. 3/16	No class meeting		SPRING BREAK

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9. 3/23	Analyzing Quantitative Data	Chapter 7 ADL article	Lecture/discussion ADL
10. 3/30	Experimental Designs	Chapter 11 ADL article	Lecture/discussion ADL Chapter 11 Quiz due
11. 4/6	Analyzing and Interpreting Qualitative Data	Chapter 8 and 9 ADL article	Lecture/discussion ADL Chapters 8 and 9 Quizzes due
12. 4/13	Grounded Theory and Ethnographic Designs	Chapter 14 and 15 ADL article	Lecture/discussion ADL Method Section Due Chapters 14 and 15 Quizzes due
13. 4/20	Mixed Methods Designs	Chapter 17 ADL article	Lecture/discussion ADL Chapter 17 Quiz due
14. 4/27	Reporting and Evaluating Research	Chapter 10 ADL article	Lecture/discussion ADL Chapter 10 Quiz due
15. 5/4	Shifting Research Genres Presentations		Class Presentations of Shifting Research Genre
16. 5/11	Shifting Research Genres Presentations		Class Presentations of Shifting Research Genre

**ARTICLE DISCUSSION LEADERSHIP
Evaluation Form**

Name: _____

1. Were relevant heuristic questions addressed in the research article presentation?

to a great extent.....to a limited extent

2. Did the ADL reflect an appropriate level of understanding of the theory, methodology, and findings of the research article?

to a great extent.....to a limited extent

3. Were engaging practices used to bring the class into critical dialog about issues related to the reading?

to a great extent.....to a limited extent

4. Did all appropriate handouts and support materials accompany the ADL?

to a great extent.....to a limited extent

5. Did the discussant(s) assume an appropriate stance to support, monitor, and stimulate discussion?

to a great extent.....to a limited extent

SHIFTING RESEARCH GENRE EVALUATION SCALE

Name: _____

1. Was an appropriate research article selected for the research genre shift?

To a great extent.....to a limited extent

2. Was the original article summarized succinctly?

To a great extent.....to a limited extent

3. Are the genre shift methods clearly explained?

To a great extent.....to a limited extent

4. Are the genre shift data gathering tools logical and meaningful?

To a great extent.....to a limited extent

5. Are the genre shift data analysis methods appropriate?

To a great extent.....to a limited extent

6. Was there appropriate speculation about findings using alternative research tools?

To a great extent.....to a limited extent