

**George Mason University
Graduate School of Education**

EDRS 810 (3 credits)

Problems and Methods in Educational Research

Fall 2010

Tuesdays, 4:30-7:20, Aquia 219

Dr. Bill Brozo

Office: 379 Aquia

Phone: 703 993-3894

Email: wbrozo@gmu.edu

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 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.

2. Completion of Human Subjects Proposal

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

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

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, 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.

4. 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.

5. Shifting Research Genre Paper

Students will find a well designed quantitative or qualitative study of a particular phenomenon 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 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.

6. Shifting Research Genre Presentation

Students will make a short power point presentation to the class over their Shifting Research Genre 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 class sessions.

7. 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.

8. 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 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.**

9. Class Participation and Attendance Policy

Because of the importance of lecture, discussion, and student presentations, you are strongly encouraged to attend and participate in class regularly. Attendance, punctuality, preparation, and active contribution to small and large group efforts are essential to the overall success of your learning experience. 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

Human Subjects on line training completion	5 pts
Human Subject Proposal	20 pts
Article Discussion Leadership	10 pts
Review of the Literature	25 pts
Shifting Research Genres Paper	20 pts
Shifting Research Genre Presentation	10 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.

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. 8/31	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. 9/7	Overview of Educational Research	Chapters 1 and 2	http://www.citiprogram.org review on line module prior to class http://research.gmu.edu/ORSP/HumanFormsAndInstructions.html In class work: research article analysis
3. 9/14	Guest Sandy Sanford of GMU Human Subjects Review Board: How to write an successful HSRB proposal		Sandy Sanford, HSRB, to speak to class
4. 9/21	Identifying Research Problems; Reviewing the Literature Specifying a Purpose; Research Questions	Chapters 3, 4, and 5	In class work: research article analysis
5. 9/28	Collecting, Analyzing and Interpreting Quantitative Data.	Chapters 6 and 7	In class work: research article analysis ADL Mandatory Training for Persons Conducting Research Using Human Subjects must be completed and certification document submitted
6. 10/5	Analyzing Quantitative Data Guest Wendy Mann: How to use the relevant data bases effectively at the GMU library	Chapter 7	In class work: research article analysis ADL Wendy Mann, GMU Library, to speak to class
7. 10/12	No class meeting		No Class Meeting

Brozo EDRS810 syllabus

8. 10/19	Experimental and Quasi-Experimental Designs Correlational and Survey Designs	Chapters 11,12 & 13	Student Consultations on HSRB proposals ADL
9. 10/26	Grounded Theory, Ethnographic and Narrative Designs	Chapters 14, 15 & 16	In class work: research article analysis ADL Quantitative or Qualitative Research Method and matching Human Subject proposal due
10. 11/2	Analyzing and Interpreting Qualitative Data	Chapters 8 and 9	In class work: research article analysis ADL
11. 11/9	Analyzing and Interpreting Qualitative Data	Chapters 8 and 9	Student Consultations on Literature Reviews ADL
12. 11/16	Mixed Method and Action Research Designs	Chapters 17 & 18	In class work: research article analysis ADL Review of Literature Due
13. 11/23	Individual Consultations on Shifting Research Genre Projects		Student Consultations on Shifting Research Genre Paper
14. 11/30	Shifting Research Genres Presentations		Class Presentations of Shifting Research Genre
15. 12/7	Shifting Research Genres Presentations		Class Presentations of Shifting Research Genre Shifting Research Genre Paper Due Verification of All Chapter Self-Assessments Due
16 12/14	TBA		TB A

