

SYLLABUS**GEORGE MASON UNIVERSITY
COLLEGE OF EDUCATION AND HUMAN DEVELOPMENT
PROGRAM NAME: Ph. D. in Education****EDRS 810
Problems and Methods in Educational Research**

Spring Semester, 2012

Meeting Time/Days: Monday: 4:30 - 7:10 pm

Location: Innovation Hall, room 317

PROFESSOR:

Name: Margo A. Mastropieri, Ph.D.

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Office location: Finley, Room 201B

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COURSE DESCRIPTION:

- A. **Prerequisites:** Admission to the Ph.D. program or permission of instructor.
- B. **Course description from the university catalog:** 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.

NATURE OF COURSE DELIVERY:

This course consists of lectures, large group and online formats, in class, whole group, small groups, and individual activities and assignments and use of relevant software including SPSS.

LEARNER OUTCOMES:

This course is designed to enable students to:

- 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.

REQUIRED TEXTS:

Creswell, J.W. (2012). *Educational Research: Planning, conducting, and evaluating quantitative and qualitative research* (4rd 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>

There is a class Blackboard site accessible through “mymason” that contains course documents and relevant links. Students are required to download pertinent documents for class.

Recommended Texts

American Psychological Association. (2009). *Publication manual of the American Psychological Association* (6th ed.). Washington, DC: Author.

Green, S.B., & Salkind, N.J. (2011). *Using SPSS for windows and macintosh: Analyzing and understanding data* (6th ed.). Upper Saddle River, NJ: Pearson Education.

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) 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/>].

Course Requirements: It is expected that each of student will:

- (1) Read all assigned materials for the course.
- (2) Attend each class session and participate in classroom activities that reflect critical reading of materials.
- (3) Complete the online Mandatory Training for Person's Conducting Research with Human Subjects.*
- (4) Complete homework assignments, including weekly online tests and submit results to professor via prior to each class meeting.*
- (5) Write and submit a complete human subject proposal to match the quantitative intervention study method section assignment.*

- (6) Write two method sections: one quantitative intervention study and one qualitative research study.
- (7) Present one method section to the class.
- (8) Complete one take home exam*.

*Late assignments will not be accepted by the instructor. If an emergency occurs please notify the instructor in advance.

Course Requirements

1. Online weekly multiple choice tests: Students are asked to complete and submit online multiple choice tests on each week's assignment. Go to <http://prenhall.com/creswell> and complete multiple choice tests for each chapter (refer to syllabus for due dates). Email exam results to yourself and me using text file format.

2. 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://www.gmu.edu/pubs/osp/humansubjects.html>. The training takes between two and five hours and can be accessed from: <http://www.citiprogram.org> Copy and paste your completion certificate, then email me the completion certificate when you complete the training.

3. Completion of Human Subjects Proposal: Students will write a human subjects proposal to accompany a quantitative intervention research method section. The materials are available on the web and the class Black Board site: <http://research.gmu.edu/ORSP/HumanSubjects.html> . Turn in a hard copy email me an electronic version.

4. Method Sections: Students will write two different method sections replicating and extending previous research studies. Each method section will be written in APA format (see sample paper on pp 306-320 of the APA manual) and contain relevant sections specific to each type of research design. One will be a **quantitative intervention research** study; one will be a **qualitative research** study. Turn in hard copies and email electronic versions.

1. Statement of purpose and research questions, including a statement indicating research you are replicating and extending and a relevant citation for the study. (see also APA manual pp. 247-249)
2. Method (5-6 pages)
 - Participants characteristics
 - Sampling procedures, setting
 - Sample size
 - Materials
 - Content for all conditions
 - Method of implementation for all conditions

Deliverer

Setting

Time span, including number of sessions, duration of each session

Unit of analysis

Measures (Data sources) (dependent variables) instrumentation (where relevant)

Procedures (proposed data collection process)

Proposed preliminary data analyses (table of research question by data source by proposed data analysis)

3. References

5. In class/Homework: Students will be asked to work individually or in small groups on in class/homework assignments throughout the semester. Some assignments are listed on the syllabus, although they may be amended throughout the semester. When you are requested to find a particular article (e.g., an experimental intervention research study, a survey research study) identify either in the margins of the article or by highlighting within the articles, the relevant parts of the study. For example, identify the following parts: (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.

6. Presentation: One method section will be presented orally using audio-visual aides (e.g., power point slides) during a ten-minute presentation. Place a copy of the slides on digital black board. Sign up sheets for presentation times will be distributed in class. Sample power point templates will be available.

7. Class Participation and Attendance Policy: Because of the importance of lecture and discussion to your total learning experience, I wish to encourage you to both attend and participate in class regularly. Attendance, punctuality, preparation, and active contribution to small and large group efforts are essential. These elements of your behavior will reflect the professional attitude implied in the course goals and will account for 10% of your course grade. With reference to the grading scale described later in this syllabus, you will note that this percentage is equivalent to a full letter grade. Students who must miss a class must notify the instructor (preferably in advance) and are responsible for completing all assignments and readings for the next class.

8. An exam covering content from the semester will be distributed in class. Students will have a couple weeks to work independently outside of class to complete this exam. Exams will be posted and email completed exams to me.

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

Course Evaluation

RUBRIC FOR In Class/HOMEWORK ASSIGNMENTS

Adequate assignment (1 point): Assignment is thorough, thoughtful, correctly done, and submitted on time.

Marginal assignment (.5 point): Assignment is carelessly prepared, not thoughtful, or incomplete.

Inadequate assignment (0 points): Assignment has little or no value, or is not submitted on time.

RUBRIC FOR WEEKLY TESTS

Adequate test (1 point): Submitted on time; reflects a score of 90% or greater.

Marginal test (.5 point): Lower score reflects lack of content knowledge.

Inadequate test (0 points): Very low score or not submitted on time.

RUBRIC FOR EXAMINATION (15 points)

Item scoring criteria:

Exemplary response: Provides direct and thorough response to question, defines relevant terms, provides specific examples or instances of the concepts being discussed. Answer is directly reflective of lecture, readings, activities, or assignments, or other material of direct relevance to class.

Adequate response: Provides direct and relevant response to question, provides accurate information directly relevant to class readings, notes, or activities. May provide less information, less elaboration, or a less thoughtful overall response than an exemplary response:

Marginal response: Provides some relevant information, but does not demonstrate overall a clear or complete understanding of the relevant concepts:

Inadequate response: Weak response that does not appear to reflect course content or activities. May include inaccurate information:

No response (0 points): no response or response that is entirely inaccurate.

RUBRIC FOR METHOD SECTION ASSIGNMENTS

Exemplary paper (18-20 points): Appropriate topic, thorough and thoughtful purpose and research questions with appropriate study cited for replication and extension, appropriate and clearly described research design, participants, materials, data sources, implementation procedures, and careful brief description of data analyses. Good writing style, free of mechanical or stylistic errors, appropriate use of APA format.

Adequate paper (16-17 points): Good overall paper, lacking in one or two of the criteria for an exemplary paper. Not entirely reflective or thoughtful, or minor writing style or APA format errors may be present.

Marginal paper (14-15 points): Overall, acceptable but with one or more significant problems. Contains some useful information, but may have substantial problems with evaluation, writing style or APA format, or unclear or inappropriate description of implementation of project.

Inadequate paper (1-13 points): Paper with substantial problems in important areas such as writing, proposed implementation of intervention, procedures for evaluation of results, or overall thoughtfulness. Contains little or no information of value to field of education.

Unacceptable/no paper (0 points): Paper with no value whatsoever relative to the assignment, or no paper turned in at all. May describe a project of no value that was not approved for this assignment.

RUBRIC FOR PARTICIPATION, AND ATTENDANCE

Exemplary (9-10 points): The student attends all classes, is on time, is prepared and follows outlined procedures in case of absence; the student actively participates and supports the members of the learning group and the members of the class.

Adequate (8 points): The student attends all classes, is on time, is prepared and follows outlined procedures in case of absence; the student makes active contributions to the learning group and class.

Marginal (7 points): The student is on time, prepared for class, and participates in group and class discussions. The student attends all classes and if an absence occurs, the procedure outlined in this section of the syllabus is followed.

Inadequate (6 or less points): The student is late for class. Absences are not documented by following the procedures outlined in this section of the syllabus. The student is unprepared for class and does not actively participate in discussions. The student may fail to exhibit professional behavior and dispositions. **Excessive absences can result in additional penalties and potential withdrawal from class.**

RUBRIC for HUMAN SUBJECT PROPOSAL

Exemplary (9-10 points) Appropriately written document containing all components, including: protocol contains answers to all questions, clearly written, informed consent forms written in readability and format appropriate for target audience.

Adequate (7-8 points) Good overall proposal, but is lacking in one or two of the criteria for an exemplary proposal. Not entirely reflective or thoughtful, or minor writing style or APA format errors may be present.

Marginal (6-7 points) Overall, is acceptable but contains one or more significant problems. Contains some useful information, but may have substantial problems with procedures, writing style or APA format, or unclear or inappropriate description of implementation of project.

Inadequate (<6 points) Proposal contains substantial problems in important areas such as writing, proposed implementation of intervention, procedures for evaluation of results, or overall thoughtfulness.

Grading Policy

Weekly on line tests	10 pts total
Human Subjects on line training completion	5 pts
Human Subject Proposal	10 pts
Method Sections	40 pts total (20 pts each)
Method Section Presentation	10 pts
Exam	15 pts
In Class/Homework, Class Participation and Attendance	10 Pts
TOTAL	100 pts

Letter grades will be assigned as follows:

A+	98-100%	A	93-97.49%	A-	90-92.49%
B+	88-89.49%	B	83-87.49%	B-	80-82.49%
C	70-79.49%	F	below 70%		

Homework Assignments

IF WE ALTER THE SCHEDULE, MOVE THESE ASSIGNMENTS TO THE RELEVANT CLASS

For class 2: Select a published peer reviewed research article from the library. Read the article; bring it to class having identified: the research problem, the literature review, the purpose or research questions, the method section, the data collection procedures, the data analyses and the discussion. Highlight each area by identifying it in the margins.

For class 3: Select a published peer reviewed literature review article from the library. Read the article; bring it to class having identified the parts of the review in the margins.

For class 5: Select a published peer reviewed experimental research intervention study article from the library. Read the article; bring it to class having identified: the research problem, the literature review, the purpose or research questions, the method section, the data collection procedures, the data analyses and the discussion. Highlight each area by identifying it in the margins.

For class 7: Select a published peer reviewed survey research article from the library. Read the article; bring it to class having identified: the research problem, the literature review, the purpose or research questions, the method section, the data collection procedures, the data analyses and the discussion. Highlight each area by identifying it in the margins.

For class 8: Select a published peer reviewed qualitative research article from the library. Read the article; bring it to class having identified: the research problem, the literature review, the purpose or research questions, the method section, the data collection procedures, the data analyses and the discussion. Highlight each area by identifying it in the margins.

Tentative Course Organization and Schedule

DATE	TOPIC	ASSIGNED READING DUE	WORK DUE
1. 1/23	Review syllabus-Introduction EDRS 810 and the Field of Educational Research; Introduction to GMU Policy for Human Subjects		Examine various websites we will be accessing: prentice hall web site: www.prenhall.com/creswell ; human subjects' training site: http://www.citiprogram.org ; and GMU HSRB site: http://research.gmu.edu/ORSP/HumanSubjects.html ; GMU Blackboard site via mymason portal: https://mymasonportal.gmu.edu/webapps/portal/frameset.jsp
2. 1/30	Conducting Research and Steps in the Research Process	Chapters 1 and 2	Weekly tests for chapters Steps in the research process Bring a peer reviewed published research article to class. Identify the research problem, the literature review, the purpose or research questions, the method section, the data collection procedures, the data analyses and the discussion. Highlight each area by identifying it in the margins.
3. 2/6	Ann Dirscoll, CEHD Librarian	How to Search the GMU Library system; Reviewing the literature ; Chapter 3	First hour of class will be a presentation by the CEHD Librarian, Ann Driscoll Weekly tests for chapters. Bring a literature review paper to class. Identify the parts of the review in the margins.
4. 2/13	Guest: Keith Bushey, 1 st hr; Specifying a Purpose; Research Questions; Reporting & Evaluating Research	Review Human Subjects information Chapters 4, and 5	Presentation from 4.30-5:30 by Keith Bushey, Director of Compliance, GMU HSRB. http://www.citiprogram.org review on line module prior to class http://www.gmu.edu/pubs/osp/humansubjects.html Review GMU policies and procedures prior to class
5. 2/20	Collecting, Analyzing and Interpreting Quantitative Data	Chapter 6	Bring an intervention RESEARCH study to class. Identify the research problem, the literature review, the purpose or research questions, the method section, the data collection procedures, the data analyses and the discussion. Highlight each area by identifying it in the margins Work on quantitative method section.

			Mandatory Training for Persons Conducting Research Using Human Subjects must be completed and certification document.
6. 2/27	Using SPSS and Analyzing Quantitative Data; Experimental designs, correlations, survey research	Chapters 10, 11, 12	Weekly tests for chapter Class will be review chapters 10,11, and 12. Bring a survey research article to class. Identify the parts of the article in the margins. Develop survey using GMU survey software program We will conduct electronic surveys and analyze the data.
7. 3/5	Bring electronic and hard copy versions of your method section and HSRB proposals to class		Draft of Quantitative Intervention Research Method and matching Human Subject proposal due for peer review ; Second half of class SPSS activities Work on quantitative method and HSRB proposals (due week after spring break). Second half complete survey data analyses using SPSS.
3/12	Spring break week no class 3/12		Spring break week no class 3/12
8. 3/19	Collecting Analyzing and Interpreting Qualitative Data	Chapters 7 & 8	Quantitative Research Method and matching Human Subject Proposal (and all consent forms) due Weekly tests for chapter. Bring a qualitative research study to class. Identify the research problem, the literature review, the purpose or research questions, the method section, the data collection procedures, the data analyses and the discussion. Highlight each area by identifying it in the margins
9. 3/26	Analyzing and Interpreting Qualitative	Chapters 7-8	Introduction to NVIVO via seminar. Weekly chapter tests.
10. 4/2	More examples and work with qualitative research		Practice Data Analysis with NVIVO

11. 4/9	Grounded Theory, Ethnographic and Narrative Designs	Chapters 13, 14 & 15	Weekly tests for chapters Draft of Qualitative research method due for peer review. EXAM POSTED ON BB; Presentation Templates POSTED on BB
12. 4/16	Mixed Method and Action Research Designs	Chapters 16 & 17 work on qualitative method, exam and presentations	Qualitative research method due. Practice designing and discussing mixed methods.
13. 4/23	Summary and synthesis: What have we learned about educational research methods	Work on exam and presentations	Work on final class products, including presentations and exam.
14. 4/30	Method section presentations		LAST CLASS MEETING – Presentation Power point slides must be posted on BB; Electronic copies of exams due by 4:30 pm
15. 5/7	Method section presentations part 2 (if needed)		Class presentations, PART 2 – If NEEDED