

George Mason University
College of Education and Human Development
Graduate School of Education

EDRS 810 (003) CRN 74319: Problems & Methods in Educational Research
Tuesdays, 4:30 – 7:10 P.M.
Innovation 203

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Office Hours: Wednesdays, 2-4 p.m. and by appointment

Course Description

This is an advanced course in the interpretation and application of education research methods. This course 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.

Pre-requisites/Co-requisites: Admission to the Ph.D. program or permission of instructor

Course Objectives

This research course examines connections among theoretical frameworks, research questions, methods of data collection, analysis and reporting. The purpose of this course is to introduce you to an understanding of quantitative, qualitative, and mixed methods inquiry. A general intent of the course is to help learners to become better consumers of research, and to understand the ways education research relates to instructional practice and school improvement. 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:
 - o identifying a research problem to study
 - o formulating the purposes of the study
 - o developing a conceptual framework for the study
 - o generating appropriate research questions
 - o planning relevant and feasible methods of sampling, data collection, and analysis
 - o anticipating plausible validity threats, and thinking of ways to deal with these
 - o 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 Methodology

This course consists of lectures, large group and electronic discussion, in class activities, and individual/group assignments.

Required Texts

Creswell, J.W. (2011). *Educational Research: Planning, conducting, and evaluating quantitative and qualitative research* (4th ed.). Upper Saddle River, NJ: Pearson Education.

See also: companion website: <http://www.prenhall.com/creswell> - access this site to complete assigned chapter quizzes.

There is a class Blackboard site (mymason.gmu.edu) that contains course documents and relevant links.

Strongly Recommended Text

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

Course Requirements

It is expected that each of you 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 in-class assignments
4. Complete the online Mandatory Training for Persons Conducting Research with Human Subjects.
5. Evaluate and write a review of one quantitative intervention study and one qualitative study.
6. Write a research proposal and present it to the class.

All assignments must follow APA guidelines. Unless otherwise noted, assignments should be electronically submitted and are due by class time on the date indicated. Assignments turned in late without prior approval will be eligible for only 50% of the available points.

Course Evaluation Assignments

Required Access to Course Blackboard Site

Blackboard will be used to post important information for this course. Announcements and resources are posted on the Blackboard site in between class sessions. You are responsible for accessing the materials (for printed copies, etc.) prior to class. In addition, you will need to login to Blackboard to upload assignments for the course.

Access Blackboard through **myMason**: àGo to the GMU homepage: <http://www.gmu.edu/> àClick on MyMason on the top of the page. àEnter your user login and password (the same as your GMU email login and password) àClick the “Courses” tab at the top of the screen àSelect your course from the middle column.

Writing Support

1. Library Support: Mason Libraries’ Liaison Librarians provide George Mason University students, faculty, and staff specialized assistance in their areas of expertise, supporting the academic programs on Mason’s Fairfax, Arlington and Prince William campuses (<http://library.gmu.edu/research/liais.html>). Among other services, Liaison Librarians

· provide research assistance in person, by phone, e-mail and IM · offer scheduled, subject-focused research consultations for students and faculty

2. Writing Support: GMU has a free Writing Center available to students that provides one-to- one assistance in writing development (<http://writingcenter.gmu.edu>). (This is NOT an editing service). According to their mission statement:

The George Mason University Writing Center is committed to supporting writers in the Mason community as they work to construct and share knowledge through writing. We aim to achieve this through providing writers with the opportunity to test out ideas with a tutorial staff comprised of trustworthy and attentive readers and listeners. We believe that the best writing support is achieved with tutors who listen and ask questions in order to foster a writer’s own curiosity. We believe that achieving a strong piece of writing takes time, and therefore requires multiple drafts. As such, we aim to support writers from the beginning exploratory stages of the writing process up through a final, well- presented idea in a final version.

Course Requirements

It is expected that each of you will:

(1) Read all assigned materials for the course.

(2) Attend and be on time for each class session and participate in classroom activities that reflect critical reading of materials. (If an emergency occurs please notify the instructor in advance.)

(3) Complete the online Mandatory Training for Person’s Conducting Research with Human Subjects.

(4) Complete homework assignments, including online tests and submit results to professor prior to class meeting.

(5) Write two method sections in a professional manner following guidelines stated in the Publication Manual of the American Psychological Association: one quantitative intervention study and one qualitative research study.

(6) Write and submit a complete human subject proposal to match the quantitative intervention study method section assignment.

(7) Present one method section to the class.

ASSIGNMENTS

Participation & Blackboard Posts

Students are asked to attend all classes on time, be prepared, post to Blackboard discussion board, and actively participate and support the members of the class learning community.

Online Chapter Quizzes

Students are asked to complete online quizzes on assigned textbook readings. Quizzes can be found at the textbook's Companion Website: <http://www.prenhall.com/creswell>. Turn in a hardcopy of the first page of each quiz (this contains your name, score, and date quiz was taken).

HSRB CITI Training Module Completion & HSRB Application

GMU requires a Mandatory Training for Persons Conducting Research Using Human Subjects. Seven learner modules in the Basic Course are required prior to applying to conduct any research at Mason using human subjects. **For this course, you will be required to complete the Basic Course AND one additional 'optional' module related to your area of interest.**

- This online training module can be accessed at <http://www.citiprogram.org>. (You must complete the required basic course before the optional modules are available).

- Specific directions for how to log on can be found at the GMU Office of Research Subject Protection website: <http://research.gmu.edu/ORSP/HumanTraining.html>

Turn in a hard copy only (this will be returned to you for your records).

GMU also requires that all researchers (including student researchers) submit a research application to the office of Human Subject Protections PRIOR to conducting research. For this course, you will be required to complete an application for your quantitative research proposal.

- Application forms and guidelines can be found at the GMU Office of Research Subject Protection website: <http://research.gmu.edu/ORSP/HumanFormsAndInstructions.html>

Submit through "Assignments" on the course Blackboard site.

Introduction and Literature Review

Students will write an introduction and literature review for their quantitative research proposal. This will be submitted as the first part of the quantitative proposal. Organizational headings in this section are not prescribed (you don't label them as Introduction and Literature Review). Instead, organizational headings will be topic specific. Refer to the APA manual for how to format headings and citations appropriately.

- Introduction & Literature Review

- o Brief introduction to the topic & literature review. (If you are replicating and extending a previous study, you should be sure to describe the original work).

- o Statement of purpose and research questions.

Quantitative and Qualitative Research Proposal

Students will write two different research proposals with method sections replicating and extending previous research studies. Each method section will be written in APA format (see sample paper on pp 41-59 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 place electronic versions on the relevant assignment box Blackboard site.

Organizational headings may vary depending on your research design and the specifics of your individual study. Headings often found in quantitative and qualitative research follow. Be sure to refer to the APA manual as well as similar work in your field to help you determine what is critical to include in your own proposal. Also refer to the APA manual for how to format headings and citations appropriately.

Quantitative Proposal Requirements:

Purpose Statement (Statement of purpose and research questions).

Method (5-6 pages)

- o **Research Design**
- o **Participants** (when applicable, should include setting, subjects, interventionists)
- o **Measures** o **Intervention** (when applicable, should include control/alternate treatment)
- o **Procedures** (when applicable, should include study procedures, data collection procedures, scoring procedures, fidelity of treatment procedures)
- o **Proposed Preliminary Data Analyses** · **References**

Qualitative Proposal Requirements:

Purpose Statement (Statement of purpose and research questions).

Method (5-6 pages)

- o **Research design**
- o **Participants** (should include sampling procedures)
- o **Data Sources** (when applicable, should include instrumentation)
- o **Procedures** (proposed data collection process—this heading is sometimes combined with Data Sources in qualitative research)
- o **Proposed Preliminary Data Analyses** · **References**

Final Presentation

One method section will be presented in a poster format. A handout should be prepared for everyone in the class. Further directions will be provided in class.

COURSE EVALUATION

Rubric for Participation & Blackboard Posts (10%)

Exemplary (A): The student attends all or almost classes (student may miss one class with notice to instructor), is always on time, and is prepared (including posting in time to Blackboard); the student completes field based activity; and the student actively participates and supports the members of the learning group and the class.

Marginal (C): The student is usually on time, usually prepared for class, and participates in group and class discussions, but may be miss participation points due to absence (two absences), failure to prepare for a class activity (such as posting for one Blackboard activity), or failure to complete the field based activity.

Inadequate (0 points): The student is frequently late for class. Student misses numerous participation opportunities due to absence (3 or more) or failure to prepare for class activities (such as posting for two or more Blackboard activities). Instructor is not notified of absences. The student 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.**

Evaluation of Online Chapter Quizzes (10%)

Online Quizzes are expected to be submitted on time with a score of 90% or greater. Points will be deducted in the following manner for tests that received a score lower than 90%, are late, or are not submitted.

Pass: All assigned chapter quizzes submitted on time with a score of 90% or greater.

Fail: Three or more assigned chapter quizzes missing or with a score <90%.

Rubric for Introduction and Literature Review (10%)

Exemplary paper (A): Establishes an important educational problem that needs to be addressed, a logical presentation of information that leads to the purpose statement of the paper. Important concepts are defined in this section as well as any background information needed to support search procedures in the methodology. Appropriate topic, thorough and thoughtful review of appropriate studies (including a study that is appropriate for replication and extension if applicable), a clearly stated purpose statement, and appropriate research questions that are consistent with the quantitative research methodology. Good writing style, free of mechanical or stylistic errors, appropriate use of APA format.

· **Adequate paper (B):** 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 (C):** 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 (D):** 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 Research Proposals (20% Each)

Exemplary paper (A): 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 (B):** 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 (C):** 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 (D):** 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 HSRB CITI Training Module & HSRB Application

CITI Training Module

Pass: Successful completion of online BASIC and one supplemental module (related to conducting research in schools or your research interest area) on time.

Fail: Unsuccessful completion of online BASIC or supplemental module or late in completing assignment.

HSRB Application

Pass: 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.

Fail: Proposal contains substantial problems in important areas such as writing, proposed implementation of intervention, procedures for evaluation of results, or overall thoughtfulness.

Rubric for Final Presentation

Exemplary presentation (A): Reflects poise, clarity, knowledge and interest in the content being presented; reflects a high level of preparation; make effective use of visuals, handouts, demonstrations; describes very clearly the treatment(s) under consideration; keeps the audience engaged; provides information of interest and value to audience.

· **Adequate presentation (B):** Good overall presentation, but may be lacking in one or two of the criteria specified in exemplary response. May seem a little less polished or prepared, may be vague in some place, or may fail to completely engage the audience.

· **Marginal presentation (C):** Presentation provides relevant information, but demonstrates only a limited understanding of the topic or project. Style, handouts, or visual aids may be less than inadequate.

· **Inadequate presentation (D):** Weak overall presentation that reflects very little knowledge of topic or project. May appear very poorly prepared, or may not have followed directions. Handouts or visual aids may be inadequate or lacking.

· **Unacceptable/no presentation (0 points):** Completely unsatisfactory presentation, with no reasonable reference to topic or project; or no presentation made.

GRADING

1. Participation & Blackboard Posts 10
2. Chapter Quizzes 10
3. Introduction & Literature Review 10
4. Quantitative Research Proposal 20
5. CITI Training & HSRB Application 20
6. Qualitative Research Proposal 20
7. Final Presentation 10

TOTAL 100 POINTS

Grading Scale: A = 90-100% B = 80-89% C = 70-79% F = <79%

COLLEGE OF EDUCATION AND HUMAN DEVELOPMENT

Student Expectations

Students must adhere to the guidelines of the George Mason University Honor Code [See <http://oai.gmu.edu/honor-code/>].

Please note that:

- o "Plagiarism encompasses the following:
 1. Presenting as one's own the words, the work, or the opinions of someone else without proper acknowledgment.
 2. Borrowing the sequence of ideas, the arrangement of material, or the pattern of thought of someone else without proper acknowledgment."
 (from Mason Honor Code online at <http://mason.gmu.edu/~montecin/plagiarism.htm>)
- o Paraphrasing involves taking someone else's ideas and putting them in your own words. When you paraphrase, you need to cite the source.
- o When material is copied word for word from a source, it is a direct quotation. You must use quotation marks (or block indent the text) and cite the source.
- o Electronic tools (e.g., SafeAssign) may be used to detect plagiarism if necessary.
- o Plagiarism and other forms of academic misconduct are treated seriously and may result in disciplinary actions.

The integrity of the University community is affected by the individual choices made by each of us. GMU has an Honor Code with clear guidelines regarding academic integrity. Three fundamental and rather simple principles to follow at all times are that: (1) all work submitted be your own; (2) when using the work or ideas of others, including fellow students, give full credit through accurate citations; and (3) if you are uncertain about the ground rules on a particular assignment, ask for clarification. No grade is important enough to justify academic misconduct. Plagiarism means using the exact words, opinions, or factual information from another person without giving the person credit. Writers give credit through accepted documentation styles, such as parenthetical citation, footnotes, or endnotes. Paraphrased material must also be cited, using MLA or APA format. A simple listing of books or articles is not sufficient. Plagiarism is the equivalent of intellectual robbery and cannot be tolerated in the academic setting. If you have any doubts about what constitutes plagiarism, please see me.

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. Please visit this link to remind you of the Professional Dispositions expected for the College of Education and Human Development and the American Psychological Association:

http://cehd.gmu.edu/assets/docs/educational_psychology/EdPsy%20CV,%20PS,%20Disp,%20Sig.pdf

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/>].

Core Values Commitment

The College of Education and Human Development is committed to **collaboration, ethical leadership, innovation, research-based practice, and social justice**. Students are expected to adhere to these principles.

Tentative Course Organization and Schedule

Date	Topic(s)	Work Due	Notes
8/27	Chapter 1: The Process of Conducting Research Chapter 2: Identifying a Research Problem		No Class Meeting
9/3	Chapter 3: Reviewing Literature Chapter 9: Reporting and Evaluating Research		First Class Meeting
9/10	Chapter 4: Specifying a Purpose and Research Questions or Hypotheses Chapter 5: Collecting Quantitative Data	Quiz CHAPTER 2, 3, 9	
9/17	HSRB CITI Training Module	Proof of Individual CITI certification	No Class Meeting
9/24	Chapter 10: Group Experimental Designs Chapter 12: Survey Designs		
10/1	Chapter 11: Correlation Designs Chapter 6: Analyzing and Interpreting Quantitative Data	DRAFT Quantitative Research Proposal (Intro)	
10/8	GUEST LECTURE – PEER REVIEW FORUM		
10/15	Chapter 7: Collecting Qualitative Data	Online QUIZ Chapters: 4, 5, 6, 10, (11 or 12)	GMU READING DAYS No Class Meeting
10/22	Chapter 13: Grounded Theory Chapter 14: Ethnography Chapter 15: Narrative Research Designs	Quantitative Research Proposal (Intro & Methods)	
10/29	GMU Library Data Services Training		Class will meet in Fenwick TBA

11/5	Chapter 8: Analyzing and Interpreting Qualitative Data		9
11/12		DRAFT Qualitative Research Proposal	
11/18	Chapter 16: Mixed Method Designs · Chapter 17: Action Research Designs	QUIZ Chapters: 7, 8, 13, (14 or 15), 16	
11/26	CONFERENCES		INDIVIDUAL SIGN-UP
12/3	FINAL PRESENTATION		

Final Paper Due: Tuesday, Dec 10, 7:00 p.m.