

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

EDRS 590: Educational Research
Mondays, 7:20 – 10:00 P.M., Thompson Hall L018
Jan 23 – May 16, 2012

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Promoting Learning  Development Across the Lifespan

Course Description

Develops skills, insights, and understanding basic to performing research, with emphasis on interpretation and application of research results. Course critiques research and uses findings in educational settings.

Course Objectives

This introductory 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. This will involve reading about research. You will be introduced to the basics of research design, including identifying a problem, conducting a brief literature search, describing data collection and analysis, writing, and ethics. 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. Learners will begin to:

1. Gain critical perspectives in order to understand the validity of education research;
2. Use appropriate reference sources to locate publications relevant to a topic of their choice;
3. Understand measures of central tendency and dispersion and their application to important education outcomes;
4. Develop an informed perspective on issues in education that is grounded in contemporary research;
5. Understand how teachers or administrators can use research to enhance instruction and inform practice;
6. Use various social science perspectives as the foundation for advocacy and change; and
7. Be able to apply technology to the task of conducting education research.

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.

There is a class Blackboard site (mymason.gmu.edu) that contains course documents and relevant links. Students are required to download pertinent documents for class.

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

All assignments should be emailed to the instructor unless otherwise noted.

1. **Human Subjects Online Ethics Training (10 points):** Students will complete Mandatory Training for Persons Conducting Research Using Human Subjects. Directions are available online at <http://research.gmu.edu/ORSP/HumanTraining.html>. The training takes between two and five hours. Copy and paste your completion certificate into a word document or save as a PDF.
2. **Evaluation of Two Empirical Research Articles (10 points each):** Students will write a critique of one quantitative study and one qualitative study obtained from a peer-reviewed journal. The evaluations should include the following parts:
 1. Purpose – a sentence or two describing the purpose of the research
 2. Methods – a paragraph describing how the study was conducted
 3. Results – a paragraph summarizing the main conclusions

4. Critical Comments – a paragraph or two critiquing the study (e.g., Is the article well organized and clear? Is anything missing? Did the researchers follow appropriate protocols and techniques for the chosen methodology? Are the conclusions logical and based on the data?)
- 3. Research Proposal (50 points):** Students will write a proposal in APA style for a research project focusing on an educational topic of interest. Students should utilize a methodological approach that most appropriately addresses their research question(s). See pp. 41-59 of the APA manual for an example of an APA style paper. The proposal should include:
1. Literature review to orient the reader to your topic and theoretical framework.
 2. Statement of purpose and research questions, including a statement indicating research you are replicating or extending and relevant citations.
 3. Methods (5-6 pages)
 - Participants and setting
 - Materials
 - Data sources (dependent variables)
 - Instrumentation (where relevant)
 - Research design
 - Procedures (proposed data collection process)
 - Proposed preliminary data analyses (bonus section)
 4. References
- 4. Research Poster Session (10 points):** Students’ research proposals will be presented in a roundtable session. Create a PowerPoint with the slides indicated below. Bring copies of the slides (either 3 or 6 per page) to class to share with your classmates. You will be split into groups of 3-4 to have a “roundtable discussion.” In this format, each person will take a turn giving an overview of their proposal to the group and answer any questions that arise. You will regroup and share again 2 or 3 times.
- Title (1 slide)
 - Lit Review (1-2 slides): bullet list of the major points from the previous research (and conceptual framework, if applicable)
 - Research Purpose and Questions (1-2 slides): identify your research purpose and questions (and hypotheses, if applicable)
 - Participants (1 slide): bullet list of key characteristics of the target population and sampling method
 - Instruments (1 slide): bullet list of instruments used
 - Methodology (1-2 slides): bullet list of how the study will be carried out
 - Analysis (1 slide): bullet list of proposed analysis (NOTE: This is a bonus section.)
 - References (1-2 slides): APA style list of works cited
- 5. In Class Assignments, Participation, and Attendance Policy (10 points):** Students will be asked to work individually or in groups of 2-3 students in class assignments throughout the semester. Because of the importance of lecture and discussion to your

total learning experience, I 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.

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

Course Evaluation

Rubric for Human Subject Online Training:

- **Pass (10 points):** Successful completion of online BASIC and other relevant components of training on time.
- **No Pass (0 points):** Unsuccessful completion of online BASIC and other relevant components or late in completing assignment.

Rubric for Evaluation of Empirical Research Articles:

- **Adequate evaluation (10 points):** Evaluation is thorough, thoughtful, correctly done, and submitted on time.
- **Marginal evaluation (5 points):** Evaluation is carelessly prepared, not thoughtful, or incomplete.
- **Inadequate evaluation (0 points):** Evaluation is poorly done and/or is not submitted on time.

Rubric for Research Proposal:

- **Exemplary paper (46-50 points):** Appropriate topic, thorough and thoughtful purpose and research questions. 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 (40-45 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 (32-39 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 (1-31 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 Roundtable Discussion:

- **Adequate presentation (10 points):** Provides a complete PowerPoint to classmates; clearly presents an overview of proposal; answers relevant questions with poise and clarity; listens actively and respectfully to others' presentations
- **Marginal presentation (5 points):** Provides an incomplete PowerPoint to classmates; presentation is not completely clear; unable to answer questions; OR fails to listen actively and respectfully to others' presentations
- **Inadequate presentation (0 points):** Completely unsatisfactory presentation, with no reasonable reference to topic or project; or no presentation made.

Rubric for In-Class Assignments, 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 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 tardy no more than twice, is prepared for class, and participates in group and class discussions. The student attends all classes and if an absence occurs, the procedure outlined in 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 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.**

Grading Policy

Human Subjects Online Training		10 pts
Evaluation of Empirical Research Article (2)	20 pts total (10 pts each)	
Research Proposal		50 pts
Research Proposal Presentation		10 pts
<u>In-Class Assignments, Participation, and Attendance</u>		<u>10 pts</u>
TOTAL		100pts

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%	

College of Education and Human Development Statements

- 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.
- 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/>].

Tentative Course Organization and Schedule

Date	Topic(s)	Reading Due	Work Due
1/23	<ul style="list-style-type: none"> • Course overview • Introduction to Educational Research • APA Style 		
1/30	<ul style="list-style-type: none"> • Identifying Research Problems • Specifying a Purpose and Research Questions & Hypotheses 	Chapters 2 & 4	
2/6	<ul style="list-style-type: none"> • Experimental Designs • Correlational Designs • Survey Designs 	Chapters 10, 11, & 12	Human Subjects Online Training

2/13	<ul style="list-style-type: none"> • Reviewing the Literature • Guest Speaker: Anne Driscoll, Education Liaison Librarian 	Chapter 3	
2/20	<ul style="list-style-type: none"> • Grounded Theory Designs • Ethnographic Designs • Narrative Research Designs 	Chapters 13, 14, & 15	Evaluation of Quantitative Research Article
2/27	<ul style="list-style-type: none"> • Mixed Method • Action Research Designs 	Chapters 16 & 17	Evaluation of Qualitative Research Article
3/5	<ul style="list-style-type: none"> • Consultations 		
3/12	<i>NO CLASS – SPRING BREAK</i>		
3/19	<ul style="list-style-type: none"> • Collecting Quantitative Data 	Chapter 5	Draft of Introduction and Literature Review
3/26	<ul style="list-style-type: none"> • Collecting Qualitative Data 	Chapter 7	
4/2	<ul style="list-style-type: none"> • Consultations 	Chapter 6	Draft of Methods Section
4/9	<ul style="list-style-type: none"> • Analyzing and Interpreting Quantitative Data • SPSS overview 	Chapter 8	
4/16	<ul style="list-style-type: none"> • Analyzing and Interpreting Qualitative Data 		Draft of Research Proposal
4/23	NO CLASS		Peer Review of Draft Proposals via email
4/30	<ul style="list-style-type: none"> • Roundtable Discussion 		PowerPoint Presentation
5/7	<ul style="list-style-type: none"> • Summary and synthesis: What have we learned about educational research methods? 		Final Research Proposal Paper