

**GEORGE MASON UNIVERSITY
COLLEGE OF EDUCATION AND HUMAN DEVELOPMENT
GRADUATE SCHOOL OF EDUCATION**

EDRS 590, Section 001: Educational Research
3 credits; Fall 2015
August 31, 2015-December 16, 2015
Wednesdays, 7:20-10:00 p.m., Thompson Hall, Room L018

PROFESSOR

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COURSE DESCRIPTION:

A. Prerequisites

None

B. Course description from the university catalog

Develops skills, insights, and understanding to perform research, with emphasis on interpreting and applying research results. Critiques research, and uses findings in educational settings.

C. Expanded Course Description

Not applicable

LEARNER OUTCOMES:

This introductory research course is designed to enable students to examine connections among theoretical frameworks, research questions, methods of data collection, analysis and reporting. The purpose of this course is to introduce students to an understanding of quantitative, qualitative, and mixed methods inquiry. This will involve reading about research. The student 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:

- gain critical perspectives in order to understand the validity of education research;
- use appropriate reference sources to locate publications relevant to a topic of their choice;
- understand measures of central tendency and dispersion and their application to important education outcomes;

- develop an informed perspective on issues in education that is grounded in contemporary research;
- understand how teachers or administrators can use research to enhance instruction and inform practice;
- use various social science perspectives as the foundation for advocacy and change;
- be able to apply technology to the task of conducting education research.

PROFESSIONAL STANDARDS:

In this course, the following educational psychology standards will be addressed:

Standard 3: Knowledge of Educational Research and Assessment. Candidates will demonstrate an understanding of the basic concepts, principles, techniques, approaches, and ethical issues involved in educational research.

Standard 4: Analysis, Critique, and Evaluation of Educational Research. Candidates will use their knowledge of quantitative and qualitative research methodology to critically read and evaluate quantitative and qualitative research articles.

Standard 6: Communication and Dissemination of Educational Research. Candidates will demonstrate critical thinking, oral presentation, technological, and writing skills as they are used in the profession. These include: a. Knowledge and use of APA style, b. Oral presentations, c. Poster presentations, d. Article abstracts, e. Research proposals, f. Literature reviews, and g. Technological skills.

NATURE OF COURSE DELIVERY:

A variety of learning approaches will be used to engage students in learning, including lecture, whole and small group discussion, and in-class and homework assignments. Instruction utilizes problem-based learning and readings support the focus of the lectures.

REQUIRED TEXT

McMillan, J. H. (2012). *Educational Research: Fundamentals for the Consumer* (6th ed.) Boston, MA: Pearson Education.

There is a class Blackboard site 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:

- read all assigned materials for the course.
- attend each class session and participate in classroom activities that reflect critical reading of materials.
- complete in-class assignments
- complete two homework assignments. Submit to professor prior to each class meeting.*
- complete the online Mandatory Training for Persons Conducting Research with Human Subjects.*
- evaluate and write a review of one quantitative intervention study and one qualitative study.*
- write a research proposal.*
- present that proposal in class.

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

COURSE ASSIGNMENTS

1. Two Homework Assignments (5 points each): Students will be asked to work individually on two homework assignments. Assignment 1 will be in preparation for a literature review and Assignment 2 will be on APA style. Details of each assignment are described on Blackboard.

2. Human Subjects Online Ethics Training (10 points): 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>

Copy and paste your completion certificate into a word document or save as a PDF, then upload a copy of the certificate file to Blackboard. Email me when you complete the training as well.

4. Critique of Two Peer Reviewed Research Articles (5 points each): Students will write a critique of one quantitative study and one qualitative study obtained from a peer-reviewed journal. The critiques should include the following parts: purpose, methods, results, and critical comments as well as your reflections about the article (see Blackboard site for specific instructions).

5. 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. Place electronic versions in the relevant assignment box on the Blackboard site. 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

6. Research Poster Session (10 points): Students' research proposals will be presented in a poster session. Place a copy of the slides on Blackboard.

7. 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 (assignments are clearly described on Blackboard). 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.

COURSE EVALUATION

RUBRIC FOR TWO HOMEWORK ASSIGNMENTS

Adequate assignment (5 points): Assignment is thorough, thoughtful, correctly done, and submitted on time.

Marginal assignment (2.5 points): 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 HUMAN SUBJECT ONLINE TRAINING

Pass (10 points) Successful completion of online course requirements and other relevant components of training on time.

No Pass (0 - 6 points) Unsuccessful completion of online course requirements and other relevant components or late in completing assignment.

RUBRIC FOR EVALUATION OF EMPIRICAL RESEARCH ARTICLES

Adequate evaluation (5 points): Evaluation is thorough, thoughtful, correctly done, and submitted on time.

Marginal evaluation (2.5 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 POSTER PRESENTATION

Exemplary presentation (10 points): Keeps within the time limits; reflects poise, clarity, knowledge and interest in the content being presented; reflects a high level of preparation; make effective use of handouts, demonstrations; describes very clearly the treatment(s) under consideration; keeps the audience engaged; provides information of interest and value to audience.

Adequate presentation (8-9 points): 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 (6-7 points): Presentation provides relevant information, but demonstrates only a limited understanding of the topic or project. Style, handouts, or visual aids may be less than adequate.

Inadequate presentation (1-5 points): 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.

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 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.**

Grading Policy

Homework Assignments (2)	10 pts total (5 pts each)
Human Subjects Online Training	10 pts
Evaluation of Empirical Research Article (2)	10 pts total (5 pts each)
Research Proposal	50 pts total
Research Proposal Presentation	10 pts
In Class Assignments, 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%

GMU POLICIES AND RESOURCES FOR STUDENTS

- Students must adhere to the guidelines of the George Mason University Honor Code (See <http://oai.gmu.edu/the-mason-honor-code/>).
- Students must follow the university policy for Responsible Use of Computing (See <http://universitypolicy.gmu.edu/policies/responsible-use-of-computing/>).
- 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.
- 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/>).

- e. 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/>).
- f. Students must follow the university policy stating that all sound emitting devices shall be turned off during class unless otherwise authorized by the instructor.
- g. 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/>).

COLLEGE OF EDUCATION AND HUMAN DEVELOPMENT STATEMENT OF EXPECTATIONS:

Please note that:

Plagiarism encompasses the following:

- Presenting as one's own the words, the work, or the opinions of someone else without proper acknowledgment.
- 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://oai.gmu.edu/honor-code/>)
- Paraphrasing involves taking someone else's ideas and putting them in your own words. When you paraphrase, you need to cite the source.
- 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.
- Electronic tools (e.g., SafeAssign) may be used to detect plagiarism if necessary.
- Plagiarism and other forms of academic misconduct are treated seriously and may result in disciplinary actions.

PROFESSIONAL DISPOSITIONS

Students are expected to exhibit professional behaviors and dispositions at all times.

CORE VALUES COMMITMENT

The College of Education & Human Development is committed to collaboration, ethical leadership, innovation, research-based practice, and social justice. Students are expected to adhere to these principles. (See <http://cehd.gmu.edu/values/>).

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	Assigned Readings Due (McMillan)	Work Due
Session 1 9/02	Course Overview Introduction to Educational Research Library Resources with Anne Driscoll		
Session 2 9/09	Overview of Educational Research Introduction to Literature Reviews Identifying Research Questions Operationalizing Variables	Chapters 1, 2	
Session 2 9/16	Review of Identifying Research Questions Research Organization Literature Reviews	Chapter 3	HW #1: Literature Review Assignment (Submit on Blackboard on 9/19)
Session 3 9/23	Identifying Purpose, Research Questions, and Hypotheses Ethics in Research Participants and Sampling	Chapter 4	Human Subjects On-Line Ethics Training (Submit copy of certificate on Blackboard on 9/26)
Session 4 9/30	Introduction to SPSS Review of SPSS and Identifying Research Questions APA Format	Optional: Review Chapters 1 and 2 in APA Manual.	HW #2: APA Format Paper (Submit on Blackboard on 10/03)
Session 5 10/07	Review of SPSS and Identifying Research Questions Overview of Quantitative Research Designs	Chapters 7, 8	E-mail draft outline and synthesis graphic on 10/10 for instructor feedback.

Date	Topic	Assigned Readings Due	Work Due
Session 6 10/14	Educational Measurement Measures of Central Tendency Evaluating Quantitative Research	Chapter 5, 6	Evaluation of Quantitative Empirical Research Article #1 bring to class on 10/14, post on BB on 10/17.
Session 7 10/21	Review of Quant. Research Designs Collecting, Analyzing, and Reporting Quantitative Findings	Chapter 9	E- mail draft of literature review on 10/24 for instructor feedback.
Session 8 10/28	Comparison of Quantitative and Qualitative Methodologies Overview of Qualitative Research		Continue revising the literature review.
Session 9 11/04	Coding Qualitative Data Collecting, Analyzing, and Reporting Evaluating Qualitative Research	Chapter 10	Evaluation of Qualitative Research Article #2 bring to class on 11/04, post on BB on 11/07.
Session 10 11/11	Review of Qualitative Coding Mixed Method Research Design The Method Section	Chapter 11	Continue revising the literature review and method section.
Session 11 11/18	Review of Data Analysis I Action Research Design Peer Review Draft	Chapter 12	E-mail draft of literature review and method section for instructor feedback.
<i>Thanksgiving Break</i>			
Session 12 12/02	Review of Data Analysis II Roundtable Discussion Individual Consultations	Chapters 13, 14	E-mail draft of research proposal for instructor feedback.
Session 13 12/09	Summary and Synthesis: What have we learned about educational research? Poster Session		Poster session (Post on Blackboard by 12/09 at 7:00 pm).
Session 14 12/16	No Class-Research Proposal Papers		Final Research Proposal Papers due by 10:00 pm on 12/16. Post on Blackboard.