GEORGE MASON UNIVERSITY COLLEGE OF EDUCATION AND HUMAN DEVELOPMENT EDUCATIONAL PSYCHOLOGY

EDEP 590 001: Educational Research

3 Credits, Fall 2016 Wednesdays 7:20-10:00 pm Thompson Hall, Room L018 (Fairfax Campus)

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Prerequisites: None

CATALOG DESCRIPTION:

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

EXTENDED COURSE DESCRIPTION:

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.

NATURE OF COURSE DELIVERY

This course is structured around readings, reflections on readings, class projects, technology activities, and writing assignments. This course will be taught using lectures, discussions, and small and large group activities. The Blackboard site for the class can be accessed at: https://mymasonportal.gmu.edu.

For those in the Educational Psychology master's program, review the student Handbook: http://cehd.gmu.edu/documents/epsychology/edpsych-handbook.pdf

LEARNER OUTCOMES

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; and
- Be able to apply technology to the task of conducting education research.

RELATIONSHIP TO PROGRAM GOALS AND STANDARDS

Across the many courses in the Educational Psychology, a number of standards are addressed. These standards are noted below. Those emphasized most strongly in this course are in bold text.

- 1. Candidates will demonstrate an understanding of principles and theories of learning, cognition, motivation, and development as they apply to a wide variety of contemporary learning contexts.
- 2. Candidates will use their *knowledge*, *skills*, *and dispositions* to apply principles and theories of learning, cognition, motivation, and development to analyze and develop instruction in applied settings.
- 3. Candidates will demonstrate an understanding of the basic concepts, principles, techniques, approaches, and ethical issues involved in educational research.
- 4. Candidates will use their knowledge of quantitative and qualitative research methodology to critically read and evaluate quantitative and qualitative research articles.
- 5. Candidates will use their knowledge of quantitative and qualitative research methodology to develop a research proposal and conduct research.
- 6. Candidates will demonstrate critical thinking, oral presentation, technological, and writing skills as they are used in the profession. These include:
 - Knowledge and use of APA style
 - Oral presentations
 - Poster presentations
 - Article abstracts
 - Research proposals
 - Literature reviews
 - Technological skills (including library/reference skills, interactive displays skills, data analysis skills)

REQUIRED TEXT

McMillan, J. H. (2016). Fundamentals of educational research (7th ed.). Boston, MA: Pearson.

STRONGLY RECOMMENDED TEXT

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

COURSE PERFORMANCE EVALUATION:

It is expected that each student will:

- 1. Read all assigned course materials and come prepared to participate
- 2. Attend each class session
- 3. Participate in classroom activities that reflect critical reading of materials
- 4. Critique and/or discuss assigned readings in class
- 7. Submit all written assignments on time via Blackboard

Technology Policy: When you are using cell phones, laptops, etc., please be respectful and do not engage in activities that are unrelated to class. Such disruptions may affect your participation grade.

COURSE REQUIREMENTS

A. HSRB CITI Training Module Completion (10%)

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.

- 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://oria.gmu.edu/research-with-humans-or-animals/institutional-review-board/human-subjectstraining/

*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 should review the application form for class discussion.

 Application forms and guidelines can be found at the GMU Office of Research Subject Protection website: http://oria.gmu.edu/research-with-humans-or-animals/institutional-review-board/human-subjects-policies-procedures-forms-and-instructions/

B. Critique of Two Empirical Research Articles (10% each)

Students will write a critique of one quantitative intervention 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).

C. Research Proposal (paper) (40%)

Students will write a research proposal (introduction, literature review, and method sections). This proposal should build on existing research and may replicate and extend previous research studies. The proposal will contain relevant sections specific to the research design (see sample paper on Blackboard as well as pp 41-59 of the APA manual). Organizational headings may vary depending on your research design and the specifics of your individual study. 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. Turn in a hard copy and place an electronic version on the relevant assignment box Blackboard site.

**There are checkpoints along the way where drafts may be submitted for feedback (noted as CP on the tentative schedule).

Proposal Requirements:

• 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.

Method

- Research Design
- o Participants (when applicable, should include setting, subjects, interventionists)
- 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 Ethical Considerations
- Proposed Preliminary Data Analyses

References

D. Exam (20%)

One exam will cover the material from the class and textbook and include multiple choice as well as short answer questions.

E. In Class Assignments, Participation, and Attendance Policy (10%)

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 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. 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. (See end of syllabus for a rubric.)

Scoring

Your final grade for this class will be based on the following:

$$A+=98-100\%$$
 $A=93-97.99\%$ $A-=90-92.99\%$ $B+=88-89.99\%$ $B=83-87.99\%$ $B-=80-82.99\%$ $C=70-79.99\%$ $F<70\%$

ADDITONAL CLASS POLICIES

Format for written work

- 1-inch margins on all sides, double-spaced, 12-point Times New Roman font.
- Include the following information: title, name, date, professor, course number.
- Fully proofread for spelling, grammar, and clarity errors; citation and references in APA format.

Late assignments

Late assignments will be marked down by half a letter grade for each day the assignment is late. If there are questions or concerns about a particular situation, please contact me via email in advance of the deadline

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. http://cehd.gmu.edu/values/

GMU POLICIES AND RESOURCES FOR STUDENTS

Policies

- Students must adhere to the guidelines of the Mason 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 Mason 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 with disabilities who seek accommodations in a course must be registered with George Mason University Disability Services. Approved accommodations will begin at the time the written letter from Disability Services is received by the instructor (see http://ods.gmu.edu/).
- Students must follow the university policy stating that all sound emitting devices shall be silenced during class unless otherwise authorized by the instructor.

Campus Resources

- Support for submission of assignments to Tk20 should be directed to tk20help@gmu.edu or https://cehd.gmu.edu/api/tk20. Questions or concerns regarding use of Blackboard should be directed to http://coursessupport.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/).
- 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 Office of Student Support staff helps students negotiate life situations by connecting them with appropriate campus and off-campus resources. Students in need of these services may contact the office by phone (703-993-5376). Concerned students, faculty and staff may also make a referral to express concern for the safety or well-being of a Mason student or the community by going to http://studentsupport.gmu.edu/, and the OSS staff will follow up with the student.

For additional information on the College of Education and Human Development, please visit our website https://cehd.gmu.edu/.

For additional information on the College of Education and Human Development, Graduate School of Education, please visit our website http://gse.gmu.edu/

Tentative Schedule (subject to change by professor)

Date	Topic	Reading	Due
Week 1	Intro: What is Research?	Chap. 1	
Aug 31	Type of Research		
Week 2	Ethics	Chap. 2	Examine CITI Training Info (due week 9 on Bb)
Sep 7		_	
Week 3	Literature Review	Chap. 4	Locate articles for critique assignments
Sep 14			
Week 4	Research Questions, Variables,	Chap. 3	CP1: List of minimum 5 articles for literature
Sep 21	and Hypotheses	_	review
Week 5	Sampling	Chap. 5	CP2: Research questions/variables/hypothesis
Sep 28		_	
Week 6	Measures & Statistics	Chap. 6	CP3: Sample
Oct 5		_	-
Week 7	Reliability & Validity	Chap. 7	CP4: Literature review
Oct 12			
Week 8	Review for exam		Exam review exercise
Oct 19			
Week 9	EXAM		CITI training due
Oct 26			
Week 10	Quantitative Design	Chap. 8 & 9	
Nov 2			
Week 11	Quantitative Design & Data	Chap. 10	
Nov 9	Analysis		
Week 12	Qualitative Design	Chap. 11	Quantitative critique due
Nov 16			
Week 13	Qualitative Design & Data	Chap. 12	CP5: Design section
Nov 19	Analysis	_	
Week 14	NO CLASS		
Nov 23	Thanksgiving Recess		
Week 15	Mixed Methods & Conclusion	Chap. 13 &	Qualitative critique due
Dec 7		15	•
Exam			Research proposal due by 10pm on Dec 9
week			

In-Class Assignments, Participation, and Attendance Rubric

Student participation is imperative to student learning and a successful class. The following rubric outlines how student participation scores will be determined in this course. All students are expected to demonstrate specific characteristics and actions throughout the semester. The quality and quantity of these actions will determine the points assigned for participation.

Students are expected to:

- a. Be punctual, present (in mind and body), and well prepared for class.
- b. Participate fully in class activities and assignments—take an active part in small and large group discussions (without dominating conversations) and pay attention to class lectures.
- c. Make insightful comments, which are informed by required readings and demonstrate reflection on those readings. Specifically, students should come to class with questions, comments, and thoughts on the current readings.
- d. Treat class activities, group discussions, and class discussions as important components of the course, showing respect for fellow classmates and the course material.
- e. Avoid using electronic devices for personal communication or other non-class-oriented purposes during class time.

Each of these criteria will be assessed on a 5-point scale:

- 5 = Student *consistently* demonstrated the criterion throughout the semester.
- 4 = Student *frequently* demonstrated the criterion throughout the semester.
- 3 = Student *intermittently* demonstrated the criterion throughout the semester.
- 2 = Student *rarely* demonstrated the criterion throughout the semester.
- 1 = Student *did not* demonstrate the criterion throughout the semester.