

# George Mason University

## College of Education of Human Development

### PhD in Education Program

#### Course Information

EDRS 810 002 - Problems and Methods in Education Research

3 Credits, Spring 2020

Thursday 4:30-7:10, Innovation Hall 316

#### Instructor Information

Seth Parsons, PhD

Office: Thompson 1405

Office Hours: By Appointment

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#### Prerequisites

Admission to the Ph.D. program or permission of the instructor.

#### University Catalog Course Description

Advanced in interpreting and applying educational research methods. Emphasizes comparisons of alternative philosophies of research, ways of formulating questions and hypothesis, research plans, and analysis procedures. Students evaluate existing studies, and investigate a range of research approaches.

#### Course Overview

The purpose of this course is to introduce doctoral students to the vocabulary and processes used in the field of educational research. Students will participate by composing a literature review, a qualitative proposal, and a quantitative proposal exploring problems in a field of interest.

#### Course Delivery Method

The class sessions will include lecture, discussion, and group work. There will be formative assignments (quizzes and discussions) and summative assessments (exam and assignments).

#### Learner Outcomes or Objectives

This course is designed to enable students to do the following:

- 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 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 coherently and clearly 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

### **Professional Standards**

Upon completion of this course, students will have met the following professional standards:

Not applicable for this course

### **Required Texts**

Johnson, R. B., & Christensen, L. (2020). *Educational research: Quantitative, qualitative, & mixed approaches* (7th ed.). Sage.

American Psychological Association. (2020). *Publication manual of the American Psychological Association* (7th ed.). Author.

### **Assignments and Examinations**

#### **1. Participation (20%)**

Students are expected to actively participate in all aspects of class: attending all courses, respectfully contributing to class discussions and activities, carefully completing all course readings and all course tasks.

#### **2. Homework Assignments (20%)**

We will discuss these assignments in class in more detail.

##### **A. Assignment #1 Current Practices in Research (10%)**

This assignment focuses on understanding research in your professional area. For this assignment you will interview someone in your specialization or secondary area who is involved in research, preferably someone at Mason. You will summarize your finding in a narrative report and a brief presentation in class.

##### **B. Assignment #2 HSRB CITI Training Module Completion (10%)**

GMU requires a Mandatory Training for Persons Conducting Research Using Human Subjects. 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 course can be accessed at <https://about.citiprogram.org/en/series/human-subjects-research-hsr/>
- Specific directions for how to log on can be found at the GMU Office of Research Integrity & Assurance website: <https://rdia.gmu.edu/topics-of-interest/human-or-animal-subjects/human-subjects/human-subjects-training/>
- Turn in a hard copy to me or email it to me. Be sure to keep a copy of your CITI training electronically. IRB will need it for approval of future projects, such as your dissertation!
- GMU also requires that all researchers (including student researchers) submit a research application to the office of Human Subjects in Research 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 external project management site, IRBnet.org, and information from the GMU Office of Research Subject Protection about IRBnet is found here: <https://rdia.gmu.edu/topics-of-interest/human-or-animal-subjects/human-subjects/irbnet/>

### 3. Quantitative Research Proposal (paper) (20%)

Students will write a research proposal (introduction, literature review, and method sections). This proposal should build on existing research and may replicate or extend previous research studies. The proposal will contain relevant sections specific to the research design (see sample paper on Blackboard as well as in 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. You should turn in an electronic version on the relevant assignment box Blackboard site.

Quantitative Proposal Requirements:

- Introduction (1-2 pages)
  - Succinctly introduce your topic and show why this study is will extend our knowledge. The introduction can be framed as a problem statement and rationale for the research you are proposing. If you are replicating and extending a previous study, you should be sure to describe the original work.
- Literature Review (5-6 pages)
  - The literature review should show what is already known from prior studies and explain how this work has informed your proposal. This section should include approximately 10-15 citations, depending on the field of work. **Note that the draft of the literature review is due prior to the draft of the proposal.**
- Statement of Purpose and Research Questions
- Method (3-5 pages)
  - Research Design
  - Participants (when applicable, include setting, subjects, intervention facilitators)
  - Measures (when applicable, demonstrate from the literature how the measures have been used before and their reported validity and reliability)
  - Intervention (when applicable, include control/alternate treatment)
  - Procedures (when applicable, include study procedures, data collection procedures, scoring procedures, fidelity of treatment procedures)

- Ethical Considerations
- Proposed Preliminary Data Analyses
- References

#### 4. Qualitative Research Proposal (Presentation) (20%)

Your qualitative proposal will be presented in a presentation format. In addition, a handout should be prepared for everyone in the class. Further directions will be provided in class.

Qualitative Proposal Requirements:

- Purpose Statement with research question(s)
- Method
  - Research Design
  - Participants (include sampling procedures)
  - Data Sources (when applicable, include instrumentation)
  - Procedures (proposed data collection process—this heading is sometimes combined with Data Sources in qualitative research)
- Ethical Considerations
- Proposed Preliminary Data Analyses
- References

#### 5. Exam (20%)

One exam will cover the material from the class and textbook and include multiple choice as well as short answer questions. The exam will cover the key material from the first half of the course. The second half of the course will be assessed by the quantitative research proposal paper and the qualitative research presentation.

#### GRADING SCALE:

Grades will be assigned based on the following:

|    |         |    |        |   |           |
|----|---------|----|--------|---|-----------|
| A  | 93-100% | B  | 83-87% | F | below 70% |
| A- | 90-92%  | B- | 80-82% |   |           |
| B+ | 88-89%  | C  | 70-79% |   |           |

Final grades are based on the assignments described above. “Extra credit” is not available.

**Late Assignments:** As a general rule, late assignments will not be accepted. If you believe you have EXCEPTIONAL circumstances and wish to negotiate to have extra time to complete coursework, you must discuss this with me before the day the assignment is due (Negotiating means that you will be sacrificing a portion, perhaps substantial, of your grade for extra time).

#### Course Performance Evaluation

Students are expected to submit all assignments on time in the manner outlined by the instructor (e.g., Blackboard, TK20, hard copy).

#### Professional Dispositions

See <https://cehd.gmu.edu/students/polices-procedures/>

## Class Schedule

| Date    | Topic                                                     | Readings                             | Assignments                                                                                     |
|---------|-----------------------------------------------------------|--------------------------------------|-------------------------------------------------------------------------------------------------|
| 1/23/20 | What is research?<br>Types of research                    | Chapters 1 & 2                       |                                                                                                 |
| 1/30/20 | Literature review<br>Library resources                    | Chapter 4                            | <i>Review Assignment 1</i>                                                                      |
| 2/6/20  | Research questions, variables,<br>hypothesis, and ethics  | Chapters 5 & 6<br>APA manual pp 4-48 |                                                                                                 |
| 2/13/20 | <b>Asynchronous online class –<br/>Seth at conference</b> |                                      | <i>Examine CITI training info</i><br><b>Draft of Introduction</b>                               |
| 2/20/20 | Sampling                                                  | Chapter 10<br>APA manual chapter 3   | <b>HW Assignment #1</b><br>Presentations of Assignment 1                                        |
| 2/27/20 | Measures                                                  | Chapter 7, 8, & 9                    | <b>Draft of Literature Review</b>                                                               |
| 3/5/20  | Reliability and Validity                                  | Chapter 11<br>APA manual chapter 4   | Presentations of Assignment 1<br><b>Draft of Purpose Statement and<br/>Research Question(s)</b> |
| 3/12/20 | <b>No class - Mason spring break</b>                      |                                      |                                                                                                 |
| 3/19/20 | Exam                                                      |                                      | <b>HW Assignment #2</b>                                                                         |
| 3/26/20 | Quantitative Design                                       | Chapters 12, 13, 14                  |                                                                                                 |
| 4/2/20  | Quantitative Design and Data<br>Analysis                  | Chapter 18 & 19                      |                                                                                                 |
| 4/9/20  | Qualitative Design                                        | Chapters 15 & 16                     |                                                                                                 |
| 4/16/20 | Qualitative Design and Data<br>Analysis                   | Chapter 20                           |                                                                                                 |
| 4/23/20 | Mixed Methods                                             | Chapter 17                           | <b>Quantitative Proposal Draft</b>                                                              |
| 4/30/20 | Presentations                                             | APA manual chapter 6                 |                                                                                                 |
| 5/7/20  | Presentations                                             | APA manual chapters 7 & 8            | <b>Qualitative Presentations</b><br><b>Quantitative Paper Due</b>                               |

Note: Instructor reserves the right to alter the syllabus with notification to students.

### 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: <http://cehd.gmu.edu/values/>.

## GMU Policies and Resources for Students

### *Policies*

- Students must adhere to the guidelines of the Mason Honor Code (see <https://catalog.gmu.edu/policies/honor-code-system/> ).
- Students must follow the university policy for Responsible Use of Computing (see <https://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 <https://ds.gmu.edu/>).
- Students must silence all sound emitting devices during class unless otherwise authorized by the instructor.

### *Campus Resources*

- Support for submission of assignments to Tk20 should be directed to [tk20help@gmu.edu](mailto:tk20help@gmu.edu) or <https://cehd.gmu.edu/aero/tk20>. Questions or concerns regarding use of Blackboard should be directed to <https://its.gmu.edu/knowledge-base/blackboard-instructional-technology-support-for-students/>.
- For information on student support resources on campus, see <https://ctfe.gmu.edu/teaching/student-support-resources-on-campus>

### **Notice of mandatory reporting of sexual assault, interpersonal violence, and stalking:**

As a faculty member, I am designated as a “Responsible Employee,” and must report all disclosures of sexual assault, interpersonal violence, and stalking to Mason’s Title IX Coordinator per University Policy 1202. If you wish to speak with someone confidentially, please contact one of Mason’s confidential resources, such as Student Support and Advocacy Center (SSAC) at 703-380-1434 or Counseling and Psychological Services (CAPS) at 703-993-2380. You may also seek assistance from Mason’s Title IX Coordinator by calling 703-993-8730, or emailing [titleix@gmu.edu](mailto:titleix@gmu.edu).

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