

George Mason University
College of Education and Human Development
Educational Psychology

EDRS 590.DL1 – Education Research
3 Credits, Fall 2024
Thursdays, 4:30pm – 7:10pm ONLINE via Zoom and Canvas

Faculty

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Prerequisites/Corequisites

None

University Catalog Course 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.

Course Overview

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 an understanding of quantitative, qualitative, and mixed methods inquiry. This will involve reading about research. Students 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.

Course Delivery Method

This course will be delivered online (76% or more) using a synchronous format via Mason's Learning Management System (LMS). You will log in to the course site using your Mason email name (everything before @gmu.edu) and email password. The course site will be available on Thursday, August 29th at 4pm.

- To access your course in Canvas: <https://canvas.gmu.edu/login/canvas>.

Under no circumstances may students participate in online class sessions while operating motor vehicles.

Learning Outcomes

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

- 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.

Professional Standards

Across the many courses in the Educational Psychology, a number of standards are addressed:

Standard 1. Candidates will use their knowledge and skills to apply concepts, principles, and theories of learning, cognition, motivation, and development to analyze and design innovative educational activities in diverse applied settings.

Standard 2. Candidates will apply their knowledge of quantitative and qualitative research methods, including basic concepts, principles, techniques, and ethical issues, to read and critique relevant products of research.

Standard 3. Candidates will apply their knowledge and skills of quantitative and qualitative research methods, including basic concepts, principles, techniques, and ethical issues, to conduct research and/or inform practice in diverse applied settings.

Standard 4. Candidates will demonstrate oral and written communication relevant to educational psychology, including knowledge and use of APA style and professional formats (e.g., oral presentations, poster presentations, article abstracts, literature reviews, research proposals, reports).

Standard 5. Candidates will demonstrate professional dispositions relevant to educational psychology such as critical thinking, collaboration, interpersonal communication, intercultural competence, ethical leadership, professionalism, and technological skills.

Required Texts

American Psychological Association. (2020). *Concise guide to APA style* (7th ed.).

*If you already have the APA manual, you may use that instead.

McMillan, J. H. (2022). *Educational research: Fundamental principles and methods* (8th ed.). Pearson.

Technical Requirements

To participate in this course, students will need to satisfy the following technical requirements:

- High-speed internet access with updated browsers.
 - Canvas supported browsers: <https://guides.instructure.com/a/7203291>

- Consistent and reliable access to GMU email and the course LMS, as these are the official methods of communication for this course.
- Speakers and a microphone or a microphone-enabled headset for use with the synchronous web conferencing tools.
- Note that students may be asked to create logins and passwords on supplemental websites and/or to download trial software to their computer or tablet as part of course requirements.

Expectations

- Course Week:
Our course week will begin on the day that our synchronous meetings take place as indicated on the Schedule of Classes.
- Log in Frequency:
Students must actively check the course LMS site and their GMU email for communications from the instructor, class discussions, and/or access to course materials at least 1 time per week. In addition, students must log in for all scheduled online synchronous meetings, if any.
- Participation:
Students are expected to actively engage in all course activities throughout the semester, which includes viewing all course materials, completing course activities and assignments, and participating in course discussions and group interactions.
- Technical Competence:
Students are expected to demonstrate competence in the use of all course technology. Students who are struggling with technical components of the course are expected to seek assistance from the instructor and/or College or University technical services.
- Technical Issues:
Students should anticipate some technical difficulties during the semester and should, therefore, budget their time accordingly. Late work will not be accepted based on individual technical issues.
- Workload:
Please be aware that this course is **not** self-paced. Students are expected to meet *specific deadlines* and *due dates* listed in the **Class Schedule** section of this syllabus. It is the student's responsibility to keep track of the weekly course schedule of topics, readings, activities and assignments due.
- Instructor Support:
Students may schedule a one-on-one meeting to discuss course requirements, content or other course-related issues. Those unable to come to a Mason campus can meet with the

instructor via telephone or web conference. Students should email the instructor to schedule a one-on-one session, including their preferred meeting method and suggested dates/times.

- Netiquette:

The course environment is a collaborative space. Experience shows that even an innocent remark typed in the online environment can be misconstrued. Students must always re-read their responses carefully before posting them, so as others do not consider them as personal offenses. *Be positive in your approach with others and diplomatic in selecting your words.* Remember that you are not competing with classmates, but sharing information and learning from others. All faculty are similarly expected to be respectful in all communications.

Course Performance Evaluation

Students are expected to submit all assignments on time in the manner outlined by the instructor.

- **Assignments and/or Examinations**

HSRB CITI and Academic Integrity Training Modules (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. GMU also has a web-based training module on Academic Integrity that will be required for this course.

Critique of Two Empirical Research Articles (10% 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 Canvas site for specific instructions and assignment template). **One of the two critiques may be done with a partner.**

Research Proposal Checkpoints (10%). 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. Checkpoints throughout the semester require students to submit drafts for feedback at certain points throughout the semester (noted on class schedule).

Students are encouraged to collaborate with a classmate for the research proposal. Partners will turn in one combined paper, turn in combined checkpoints, and communicate with the instructor regarding the shared workload.

Research Proposal Paper (30%). The proposal will contain relevant sections specific to the research design. 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. Resources will be posted to Canvas to aid in developing your proposal.

Unit Quizzes (10% each). There will be a quiz at the end of the second and third units, one on quantitative research and one on qualitative research. These quizzes will be available for 7 days, however they will be timed once begun and auto-submitted after 90 minutes (although they will likely take less than 60 minutes to complete). They are open-book and open-notes.

Participation (10%). Students will be asked to work individually or in groups of 2-3 students in class assignments and activities 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.

- **Other Requirements**

Although you may join the class zoom session from any device, it is expected that you will be in a location that allows you to participate fully and that you will have access to a tablet or computer to engage in class activities.

Formal written work is expected to follow correct APA format. That includes font, margins, etc.

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 course work, 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).

- **Grading**

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%	

Use of Generative AI

Use of Generative AI tools should be used following the fundamental principles of Mason’s Academic Standards. This includes being honest about the use of these tools for submitted work and including citations when using the work of others, whether individual people or Generative AI tools. This course emphasizes ethical conduct in accordance with the university and the field (APA). Please act accordingly, including any use of Generative AI.

Professional Dispositions (CEHD Student Guide)

Throughout study in the College of Education and Human Development, students are expected to demonstrate behaviors that reflect the positive dispositions of a professional. See <https://cehd.gmu.edu/current-students/cehd-student-guide>.

CEHD Commitments

The College of Education and Human Development is committed to fostering collaboration and community, promoting justice and equity, and advancing research-informed practice. Students are expected to adhere to, and contribute to, these commitments, the CEHD Mission, and Core Values of George Mason University. More information can be found here: <https://cehd.gmu.edu/about/culture/>

GMU Policies and Resources for Students (see <https://stearnscenter.gmu.edu/home/gmu-common-course-policies/> for more information)

Policies

- Students must adhere to Mason’s Academic Standards (see <https://catalog.gmu.edu/policies/academic-standards/>)
- 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 VIA should be directed to viahelp@gmu.edu or <https://cehd.gmu.edu/aero/assessments>.
- Questions or concerns regarding use of your LMS should be directed to:
 - Canvas: <https://its.gmu.edu/service/canvas/>
- For information on student support resources on campus, see: <https://ctfe.gmu.edu/teaching/student-support-resources-on-campus>
 - TimelyCare: <https://caps.gmu.edu/timelycare-services/>
 - Writing Center: <https://writingcenter.gmu.edu/>
- For additional information on the College of Education and Human Development’s Student Success Resources, please visit: <https://cehd.gmu.edu/students/>.

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

As a faculty member, I am designated as a “Non-Confidential Employee,” and must report all disclosures of sexual assault, sexual harassment, 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 or support measures from Mason’s Title IX Coordinator by calling 703-993-8730, or emailing titleix@gmu.edu.

Class Schedule

Note: Faculty reserves the right to alter the schedule as necessary, with notification to students.

Unit	Week	Date	Topic	McMillan Reading	Assignments Due
I	1	8/29	Introduction to Education Research	Chapter 1	
	2	9/5	Research Problems and Questions	Chapter 3	
	3	9/12 NO CLASS	Locating and Reviewing Related Literature	Chapter 4	Checkpoint 1
	4	9/19 NO CLASS	Ethical Issues, Principles, and Practices	Chapter 2	<i>Scavenger Hunt</i>
II	5	9/26	Participants and Sampling for Quantitative Design	Chapter 5	<i>CITI & Integrity</i>
	6	10/3	Quantitative Data Collection & Measurement	Chapter 6 & 7	Checkpoint 2
	7	10/10	Quantitative Research Designs	Chapter 8 & 9	
	8	10/17	Understanding Statistical Inferences	Chapter 10	Quantitative Unit Quiz
III	9	10/24	Qualitative Research Designs	Chapter 11	Quantitative Article Critique
	10	10/31 NO CLASS	Qualitative Data Collection	Chapter 12	
	11	11/7	Qualitative Data Analysis and Reportin	Chapter 13	<i>Data Collection</i> Checkpoint 3
	12	11/14	INDIVIDUAL MEETINGS	Sign up!	Qualitative Unit Quiz
IV	13	11/21	Mixed Methods and Action Research	Chapter 14 & 15	Qualitative Article Critique
	14	11/28 NO Class	Thanksgiving Recess		Checkpoint 4
	15	12/5	Communicating Research Results	Chapter 16	
Final Research Proposal due by midnight on December 15 th					