

George Mason University
College of Education and Human Development
Educational Psychology

EDRS 590 DP1/DL1 – Educational Research

3 Credits, Spring 2022

Wednesdays, 7:20-10pm, Online (Synchronous)

Faculty

Name: Dr. Anthony Arciero

Office Hours: Mondays, 6-7pm, & Thursdays, 6-7pm
by Zoom (request link in advance)

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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 using a synchronous online format. Course materials for online sessions will be available via Blackboard Learning Management system (LMS) housed in the MyMason portal. You will log in to the Blackboard (Bb) course site using your Mason email name (everything before “@masonlive.gmu.edu”) and email password.

Under no circumstances, may candidates/students participate in online class sessions (either by phone or Internet) while operating motor vehicles. Further, as expected in a face-to-face class meeting, such online participation requires undivided attention to course content and communication.

Learner Outcomes or Objectives

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 program, a number of standards are addressed. These standards are noted below. Those emphasized most strongly in this course are in bold text.

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. (2019). *Concise guide to APA style*. American Psychological Association.

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

Course Performance Evaluation

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

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.

It is expected that each student will:

1. Read all assigned course materials.
2. Participate in all activities in a way that reflects critical reading of materials.
3. Critique and/or discuss assigned readings fully.
4. Show respect for each other and the instructor. This course is a collaborative and safe space. *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.

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.

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.

Instructor Support: Students may schedule a one-on-one meeting to discuss course requirements, content or other course-related issues. Students should email the instructor to schedule a one-on-one session, including their preferred meeting method (phone or video conference) and suggested dates/times.

Assignments and 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 Blackboard site for specific instructions).

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 (noted on class schedule).

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.

Proposal Requirements (Organizational headings may vary depending on your research design and the specifics of your individual study):

- 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).
- Statement of purpose and research questions.
- Method
 - o Research design
 - o Participants (when applicable, include setting and subjects)
 - o Measures
 - o Intervention (when applicable, include control/alternate treatment)
 - o Procedures (when applicable, include study procedures, data collection procedures, scoring procedures, fidelity of treatment procedures)
 - o Ethical considerations
 - o Proposed preliminary data analyses
- Limitations
- References

Exam (20%). One exam will cover the material from the class and textbook and include multiple choice as well as short answer questions.

Participation and Attendance (10%). Students will be asked to work individually or in groups of 2-3 students on class assignments throughout the semester, both online and in-person. 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

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.

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%	

Technical Requirements

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

- High-speed Internet access with standard up-to-date browsers. To get a list of Blackboard's supported browsers see:
https://help.blackboard.com/Collaborate/Ultra/Moderator/Get_Started/Browser_Support

To get a list of supported operating systems on different devices see:

[Supported Technologies for Blackboard Learn 9.1 Q2 2017 Self-Hosted Systems | Blackboard Help](#)

- Students must maintain consistent and reliable access to their GMU email and Blackboard, as these are the official methods of communication for this course.
- 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.

• The following software plug-ins for PCs and Macs, respectively, are available for free download:

o Adobe Acrobat Reader: <https://get.adobe.com/reader/>

o Windows Media Player:

<https://support.microsoft.com/en-us/help/14209/get-windows-media-player>

o Apple Quick Time Player: www.apple.com/quicktime/download/

Professional Dispositions

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

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/>.

Class Schedule

Date	Topic	Reading	Key Due Dates
January 26	Introduction: What is Research? Types of Research	McMillan, Chapter 1 APA Chapter 1	
February 2	Ethics	McMillan, Chapter 2 APA Chapter 8	CITI Training <i>and</i> Academic Integrity Training
February 9	Research Questions	McMillan, Chapter 3 APA Chapters 2 & 3	
February 16	Literature Review	McMillan, Chapter 4 APA Chapter 9 & 10	Checkpoint 1: Research questions/ variables/ hypotheses
February 23	Sampling	McMillan, Chapter 5 APA Chapters 4 & 5	
March 2	Measures, Reliability, & Validity	McMillan, Chapter 6 (pp. 138-142; 155-168) and Chapter 7	Checkpoint 2: Annotated bibliography with 5 or more articles
March 9	Statistics Exam Review	McMillan, Chapter 6 (pp. 143-153) APA Chapter 6 & 7	
March 16 – No Class	Spring Break		
March 23 No Class	EXAM - - You will be given two days to take the timed exam, beginning Wednesday March 23 rd at 7:20pm and ending Friday March 25 th at 11:59pm.		Checkpoint 3: Sampling
March 30	Quantitative Design	McMillan, Chapters 8 & 9	
April 6	Quantitative Design & Data Analysis	McMillan, Chapter 10	Checkpoint 4: Introduction and Literature Review
April 13	Qualitative Design	McMillan, Chapter 1	
April 20	Qualitative Design and Data Analysis	McMillan, Chapter 12	Quantitative Article Critique
April 27 No Class	INDIVIDUAL MEETINGS via sign-up posted on Blackboard		Qualitative Article Critique

Class Schedule Continued

Date	Topic	Reading	Key Due Dates
May 4	Mixed Methods and Conclusions	McMillan, Chapter 13 & 15	Checkpoint 5: Design and Methods
May 11 Finals Period	No Class – Research Proposals due by 11:59 on May 13 th .		

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

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 VIA should be directed to viahelp@gmu.edu or <https://cehd.gmu.edu/aero/assessments> .

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, 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.

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