

**COLLEGE OF EDUCATION AND HUMAN DEVELOPMENT
EDUCATIONAL PSYCHOLOGY**



EDEP 823

**Research Project in Educational Psychology: Sequence I
Spring 2018**

Thursday 4:30-7:10 PM

Thompson Hall, L014

Instructors: Drs. Michelle Buehl & Angela Miller

Office phone: 703-993-9175 (Buehl) and 703-993-5590 (Miller)

Office location: West 2104 (Buehl) and West 2007 (Miller)

Office hours:

Dr. Buehl: Thursday 2:30-3:30 & by appointment

Dr. Miller: Monday 3:00- 4:00 & by appointment

Email addresses: amille35@gmu.edu / mbuehl@gmu.edu (email is preferred mode of contact)

COURSE DESCRIPTION:

A. Prerequisites: EDEP820, EDEP821, EDEP822 (if doctoral focus is educational psychology).
Doctoral students of other areas may take without prerequisites.

B. Focuses on the development and implementation of research studies in educational psychology. Students will acquire skills regarding developing research questions and a sound methodological approach for their study. First in two course sequence.

NATURE OF COURSE DELIVERY:

This course consists of lectures, group and electronic discussions, in class activities, and individual/group assignments.

LEARNER OUTCOMES:

This course is designed to enable students to:

- design and conduct a study of some aspects of human learning within an educational or other relevant setting
- synthesize and apply information in the context of an actual problem
- design the basic components of a small-scale quantitative/qualitative research study, including descriptive statistics and inferential statistics
- write clearly and coherently about the conceptual framework, questions, and methods used in a research study
- deal appropriately with ethical issues in research
- develop research hypotheses that relate to research questions
- demonstrate an understanding of quantitative or qualitative research design through completion of a project
- identify threats to internal and external validity in simulated studies, and their own research design

- develop and reinforce their critical thinking, oral, and writing skills

PROFESSIONAL STANDARDS:

The program goals are consistent with the following Learner-Centered Psychological Principles outlined by the American Psychological Association Presidential Task Force in Education (APA, Division 15).

- Principle 1: The Nature of Learning Process
- Principle 2: Goals of the Learning Process
- Principle 3: Construction of Knowledge
- Principle 4: Strategic Thinking
- Principle 5: Thinking about Thinking
- Principle 6: Context of Learning
- Principle 7: Motivational and Emotional Influences on Learning
- Principle 8: Intrinsic Motivation to Learn
- Principle 9: Effects of Motivation on Effort
- Principle 11: Social Influences on Learning
- Principle 13: Learning and Diversity

For more information please see:

American Psychological Association (1997). *Learner-Centered Psychological Principles: Guidelines for the Teaching of Educational Psychology in Teacher Education Programs*. Retrieved October 14, 2002 from <http://www.apa.org>

REQUIRED TEXTS:

- 1) A research methods textbook (from EDRS 810):

Creswell, J. W. (2012). *Educational research: Planning, conducting, and evaluating quantitative and qualitative research*. (4th ed.) Upper Saddle River, NJ: Pearson.

OR

Johnson, R. B., & Christensen, L. (2017). *Educational research: Quantitative, qualitative, & mixed approaches* (6th ed.) Los Angeles, CA: Sage.

*NOTE: Earlier editions are fine if you have purchased them for other classes.

- 2) Goodson, P. (2017). *Becoming an academic writer* (2nd ed.) Los Angeles, CA: Sage.
- 3) Other required readings will be available on Blackboard or through GMU's electronic journal or book database.

RECOMMENDED TEXTS:

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

COURSE REQUIREMENTS AND EVALUATION CRITERIA:*Course Requirements*

It is expected that each of you will:

1. Read all assigned materials for the course
2. Critique, present/discuss assigned readings in class *
3. Participate in classroom activities that reflect critical reading of materials
4. Write a research proposal and present in a poster session *
5. Attend each class session

Course Evaluation

1. Research Proposal: Students will write a research proposal that focuses in a specific content area of interest. The paper should include the following sections: (1) Statement of the Problem; (2) Purpose of the Study; (3) Significance of the Study; (4) Review of Literature; (5) Questions and/or Hypotheses; (6) Design / Procedure; (7) Sample; (8) Measures; (9) Data Collection; and (10) Analysis Plan. Some of these sections are submitted as smaller assignments and the full research proposal will be submitted as a final paper. A papers must adhere to the APA Publication Manual Guidelines.

2. Poster Presentation: The planned research project will be presented in a poster presentation conference format at the end of the semester following APA presentation guidelines.

3. Human Subjects Proposal Certification and Research Application Submission: 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 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. In addition, students will complete the research application and submit it to the Human Subjects Institutional Review Board for review.

4. Class participation and Attendance: Because of the importance of lecture and discussion to your total learning experience, we 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 instructors (preferably in advance) and are responsible for completing all assignments and readings for the next class. Late assignments will not be accepted unless a serious emergency arises and the instructor is notified promptly.

Grading Policy

Research Problem Statement (Research Question)	5%
Overview (Intro/Statement of Problem/Significance)	10%
Review of Literature	10%
Methods (Design/Procedure/Sample/Measures)	10%
Human Subjects Citi-training and IRB proposal submission	15%
Poster Presentation	5%
Research Proposal	35%
Class Participation and Attendance	10%

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%		

Professional Dispositions

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

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 <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/aero/tk20>. Questions or concerns regarding use of Blackboard should be directed to <http://coursesupport.gmu.edu/>.
- For information on student support resources on campus, see <https://ctfe.gmu.edu/teaching/student-support-resources-on-campus>

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

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/>.

TENTATIVE CLASS SCHEDULE

Date	Class	Topic	Reading	Due
1/25	1	Intro Review Syllabus	Course Syllabus	Free write (due 1/26)
2/1	2	Identifying and Framing a Research Problem	Creswell Ch. 1, 5 & 6 OR J&C Ch. 1 & 2 APA Div 15 webinar OR Activity Articles	5-6 Sentence Paragraph Discussion Board posting on Developing Habits for Educational Research and Academic Writing Activity
2/8	3	Conducting a Literature Review Specifying a Purpose	Creswell Ch. 2 OR J&C Ch. 4 Suri & Clark (2009) Goodson Appendix A	Research Problem Statement
2/15	4	Theoretical /Conceptual Framework	Creswell Ch. 3 *Goodson Ch. 1-3	CITI Training
2/22	5	Research Design	Creswell Ch. 8 -10 OR J&C Ch. 12-17 *Goodson Ch. 7	Draft of Initial Design Thoughts
3/1	6	Participants and Sampling Power Analysis	Creswell Ch. 8 -10 J&C Ch. 12-17 Sampling sections of at least 2 articles in your content area and 2 articles using your intended methodological approach	Find articles in your content area and methodological approach and take notes about their sampling strategies –what they did and why they did it Introduction Section Due 3/2

3/8	7	Collecting Data Measurement	Creswell Ch. 7 OR J&C Ch. 7-9 Qual: Data collection sections of at least 2 articles in your content area and 2 using your intended methodological approach Quant: Measures section of at least 2 articles that use your DV measures and measures section of articles of at least 2 of your other measures.	Literature Review Headings
3/15		NO CLASS Spring Break		
3/22	8	Review of IRB application and IRB forms and process	Creswell Ch. 4 OR J&C Ch. 6 Review GMU IRB website	Planned Methods (bullet points)
3/29	9	Writing Day /Individual Meetings	Creswell Ch. 4 OR J&C Ch. 5 *Goodson Ch. 8	Literature Review Section due 3/30 Peer Feedback on Methods
4/5	10	Data Analysis Plan	Creswell Ch. 8 OR J&C Ch. 19 & 20 Analysis section of two articles using your methodological approach	IRB draft due <u>Wed. 4/4</u> List of Data
4/12	11	NO CLASS AERA		IRB Application Submitted due 4/13
4/19	12	Study Implications	J&C Ch. 11	Methods
4/26	13	Study Limitations	TBD *Goodson Ch. 4-6	

5/3	14	Poster Presentations		Poster in class 5/3 Send poster materials to instructors by 9am 5/2
5/10	15			Research Proposal due 5/10

CRITERIA	LEVEL OF PERFORMANCE			
	Distinguished	Proficient	Basic	Un-satisfactory
Purpose & Significance of the Study Review of Literature	The student described in detail the purpose and significance of study. The student provided a complete high quality literature review which cites relevant references, cites current as well as earlier research and deals with relevant theories or theoretical frameworks	The student described in detail the purpose and significance of study. The student provided a quality literature review citing relevant research	The student described in detail the purpose of the study. The student provided a basic literature review	The student was unable to provide purpose of the study or a literature review
Quantitative Proposals: Hypothesis	The student clearly stated a significant and testable hypothesis. The hypothesis is important enough to be researched in terms of its significance concerning what is already known about the areas of research and/or an existing theory or theoretical framework	The student stated a significant and testable hypothesis.	The student stated a testable hypothesis.	The student was unable to state a hypothesis.
Qualitative research proposals: Research Questions	The student provided a research question well- aligned with the other dimensions of the research design, a sufficient rationale for choosing a particular question, and described a process that allows for evolution of the research question	The student provided a research question well-aligned with other dimensions of the research design.	The student provided a research question somewhat aligned to the other dimensions of the research design.	The student failed to provide a research question.
Methods: Quantitative	The student provided a feasible design which maximizes the reliability and validity of the measures of her/his variables. The design of the included design, procedures, sample measures	The student provided a feasible design which addresses the reliability and validity of the measures of her/his variables. The design of the study will include design, procedures, sample measures	The student provided a design which includes design, procedures, sample measures.	The student was unable to provide a design for the study

Methods: Qualitative	The student provided clear and justifiable rationale for the selection of a study site/sample, an outline of data collection procedures that are flexible and iterative, and an account of how the process of analysis will be approached.	The student provided sufficient rationale for the selection of the study site/sample, outlined data collection procedures and gave an account of how the process of analysis will be approached.	The student provided some rationale for sample selection, data collection and some outline of procedures and analysis.	The student failed to provide a rationale for sample selection, data collection and analysis.
Data Collection and Results	The student used appropriate statistical techniques, descriptive, inferential to analyze the data (quantitative research). OR the student used appropriate coding and interpretive procedures (qualitative research).	The student used appropriate statistical techniques or qualitative analysis techniques.	The student used appropriate statistical techniques or qualitative analysis techniques.	The student was unable to use appropriate statistical techniques or qualitative analysis techniques.
Discussion Section	The student provided a thorough discussion which includes a discussion of the results, limitation and future research and limitations of the findings	The student provided discussion which includes a discussion of the results, limitation and future research	The student provided a basic discussion of the results	The student was unable to provide a thorough or discussion
Mechanics of Paper	The student provided a well written research papers which adhered to the APA Publication Manual Guidelines.	The student provided an average written research papers which adhered to the APA Publication Manual Guidelines.	The student provided a research paper which missed several vital elements of a research paper outlined in the APA Publication Manual Guidelines.	The student was unable to provide a final draft of the research paper
Poster Session	The student provided an excellent poster presentation that adhered to the APA Publication Manual Guidelines.	The student provided a poster presentation that adhered to the APA Publication Manual Guidelines.	The student provided a poster presentation that was missing several key elements	The student was unable to construct a poster presentation