

**GEORGE MASON UNIVERSITY
COLLEGE OF EDUCATION AND HUMAN DEVELOPMENT
EDUCATIONAL PSYCHOLOGY**

**EDEP 823
Research Project in Educational Psychology: Sequence I
Spring 2017
Monday 4:30-7:10 PM
Innovation Hall 129**

PROFESSOR:

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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:

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

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

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, PERFORMANCE-BASED ASSESSMENT, AND EVALUATION CRITERIA:

A. 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

B. Performance-based assessments

Research Proposal, Please see rubric

C. Course Evaluation

1. Research Project and Poster Session -Sequence I (70 points, See Rubrics): 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: Methods and Procedures; (7) Sample; (8) Measures; and (9) Data Collection. The research proposal will be submitted as a final term paper, and it will be presented in some final professional conference format at the end of the semester (e.g., poster, roundtable discussion, paper presentation) at the end of the semester following APA presentation guidelines. Research papers must adhere to the APA Publication Manual Guidelines.

2. Evaluation of One Empirical Research Article (5 points): Students will be asked to identify and write a critique of one empirical research article related to their own research project. The critique should include the following parts: purpose, methods, results and critical comments as well as reflections about the article. Informally, students will discuss their article in class.

3. Human Subjects Proposal Certification and Research Proposal Submission (15 points): A. 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 takes between two and five hours and 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.

B. In addition, students will write a research proposal and submit it to the Human Subjects Institutional Review Board for review and approval.

4. Class participation and attendance policy (10 points): (See Rubric) 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. 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 instructor (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.

D. Grading Policy Research Proposal/Poster Presentation: Sequence I 70 pts Article Evaluation 5 pts Human Subjects Proposal Certification, Submission and Approval 15 pts Class Participation and Attendance 10 pts TOTAL 100 pts

D. Grading Policy

Research Proposal/Poster Presentation: Sequence I	70 pts
Article evaluation	5 pts
Human Subjects Citi-training and IRB proposal submission	15 pts
Class Participation and Attendance	10 pts
TOTAL	100 pts

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%		

GMU POLICIES AND RESOURCES FOR STUDENTS

1. *Policies*

- a. Students must adhere to the guidelines of the Mason Honor Code (see <http://oai.gmu.edu/the-mason-honor-code/>).
- b. Students must follow the university policy for Responsible Use of Computing (see <http://universitypolicy.gmu.edu/policies/responsible-use-of-computing/>).
- c. 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.
- d. 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/>).
- e. Students must follow the university policy stating that all sound emitting devices shall be turned off during class unless otherwise authorized by the instructor.

2. *Campus Resources*

- a. 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://coursessupport.gmu.edu/>.

- b. The 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/>).
- c. The 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/>).
- d. The Student Support & Advocacy Center staff helps students develop and maintain healthy lifestyles through confidential one-on-one support as well as through interactive programs and resources. Some of the topics they address are healthy relationships, stress management, nutrition, sexual assault, drug and alcohol use, and sexual health (see <http://ssac.gmu.edu/>). Students in need of these services may contact the office by phone (703-993-3686). 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://ssac.gmu.edu/make-a-referral/>.
- e. For additional information on the College of Education and Human Development, please visit our website <http://cehd.gmu.edu/>.

TENTATIVE COURSE SCHEDULE (Check Bb regularly for updates)			
DATE	TOPIC	Readings	AssignmentsDUE
WK. 1 Jan 23	Review syllabus Introduction and Overview	Course syllabus	
WK. 2 Jan 30	An Overview of Research Methods Identifying and Framing a Research Problem In Class Assignment: Research Questions	Creswell (2012) Ch 1&2 Slavin (2003)	
WK. 3 Feb 6	Conducting a Literature Review Developing a Conceptual Framework; Specifying a purpose and Research Questions or Hypotheses Anne K Driscoll Visit	Creswell(2012) Chapter 3 & 4 Maxwell (2006) on Bb Suri & Clarke (2009)	
WK. 4 Feb 13	Research Design: Quantitative Approaches (Experimental, Correlational, and Survey designs). In class exercise: Consider potential experimental, correlational and survey designs for your study.	Creswell(2012) Chapters 10-12 Choose one quantitative study in your topic area to draw on for discussions.	Initial Statement of Research Topic Article Evaluation TBD
WK. 5 Feb 20	Research Design: Qualitative and Mixed Methods Approaches In class exercise: Consider potential qualitative designs (e.g., case study, narrative, ethnography) for your study.	Creswell(2012) Chapters 13-16 Choose one qualitative study in your topic area to draw on for discussions. Supplemental: Barab & Squire (2004); Design based research collective (2003); Stake (2005); Denzin	Article Evaluation TBD

		& Lincoln (2011)	
WK. 6 Feb 27	Participants and Sampling	Creswell(2012) Chapters 5& 7 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. Article Evaluation TBD
WK. 7 March 6	Collecting Quantitative and Qualitative Data; procedures and processes Measurement In class: IRB Process Download IRB submission form and draft your submission	Creswell (2012) Chapters 5 &6 Pellegrino (2016) and review special issue for articles of interest. Data collection sections of at least 2 articles in your content area and 2 articles using your intended methodological approach.	Complete Citi training or provide documentation of prior CITI-training Human Subjects Website at GMU Article Evaluation TBD
WK 8 March 13	No class, SPRING BREAK		
WK. 9 March 20	Review of IRB proposal and IRB process Discuss IRB proposals in class.	APA Manual Ch 1. Review GMU IRB website.	IRB proposal due Article Evaluation TBD
WK 10 March 27	No Class, Writing day (Dr. Sheridan serving as invited Wampler Scholar at James Madison University).	APA Manual Ch 3	Draft of Introduction Section for Feedback

WK 11 April 3	Data Analyses and Interpretation: Preparing, organizing and analyzing qualitative and quantitative data Discuss introduction section in class.	Creswell Chapter 6&8 Analysis section of 2 articles in your content area and 2 using your methodological approach.	Article Evaluation TBD
WK 12 April 10	No class, Writing day, Dr. Sheridan out of town.		
WK. 13 April 17	Planning data Collection Procedures and processes Validity strategies Discuss methods section in class.	Creswell (2012) Chapter 5-7 (revisit 5&6) Identify validity/trustworthiness strategies from qualitative articles in your literature review. Supplemental Maxwell (2012) section on validity	Draft of Methods Section for Feedback Article Evaluation TBD
WK 14 April 24	Revising the research proposal and IRB submissions as needed.		
WK. 15 May 1	Proposed Analysis of Results Expected Results, Limitations, and Implications	Creswell (2012) Ch 6, 8,9	
WK. 16 May 8	Presentations		Project Poster Research Paper due

Criteria	Distinguished	LEVEL OF PERFORMANCE		Un-satisfactory	Score
		Proficient	Basic		
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	The student provided a feasible design which addresses the	The student provided a design which includes	The student was unable to provide a design for the	

	of the measures of her/his variables. The design of the included design, procedures, sample measures	reliability and validity of the measures of her/his variables. The design of the study will include design, procedures, sample measures	design, procedures, sample measures.	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	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	The student was unable to provide a final draft of the research paper	

			APA Publication Manual Guidelines.		
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	

Supplemental Reading List

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

Barab, S., & Squire, K. (2004). Design-based research: Putting a stake in the ground. *Journal of the Learning Sciences*, 13(1), 1–14. doi:doi:10.1207/s15327809jls1301_1

Barlow, D.H., & Hersen, M. (1984). *Single case experimental designs: Strategies for studying behavior change*. New York: Pergamon.

Bogdan, R. & Biklen, S. (2007). *Qualitative research for education: An introduction to theory and methods* (5th ed.). Needham Heights, MA: Allyn & Bacon.

Charman, K. (2000). Grounded theory: Objective and constructivist methods. In N. K. Denzin & Y.S. Lincoln (Eds.), *Handbook of qualitative research* (2nd ed., pp.509-535). Thousand Oaks, CA: Sage.

Cronbach, L.J., & Meehl, P.E. (1995). Construct validity in psychological tests. *Psychological Bulletin*, 52(4), 281-302.

Cohen, J. (1994). The earth is round ($p < .05$). *American Psychologist*, 49, 997-1004.

- Denzin, N. & Lincoln, Y. (2011). *The SAGE Handbook of qualitative research* (4th ed.). Thousand Oaks, CA: Sage.
- Dewaele, J. (2005). Questionnaires in second language research, construction, administration and processing. *International Journal of Bilingual Education & Bilingualism*, 8(1), 98-99.
- Fitzgerald, S. M., Rumrill, Jr., P. D. (2005). Quantitative alternatives to narrative reviews for understanding existing research literature. *Work: Journal of Prevention, Assessment & Rehabilitation*, 24(3), 317-323.
- Fontana, A., & Frey, J.H. (1998). Interviewing: The art of science. In N.K. Denzin & Y.S. Lincoln (Eds.), *Collecting and Interpreting qualitative research* (pp.47-78). Thousand Oaks, CA: Sage Publications, Inc.
- Fueyo, V., & Koorland, M.A. (1997). Teacher as researcher: A synonym for professionalism. *Journal of Teacher Education*, 48(5), 336-344.
- Girden, E.R. (2001). *Evaluating research articles from start to finish* (2nd ed). Thousand Oaks, CA: Sage.
- Green, J.C., Caracelli, V.J., & Graham, W.F. (1989). Toward a conceptual framework for mixed-method evaluation designs. *Educational Evaluation and Policy Analysis*, 11, 255-274.
- Heiman, G.W. (2000). *Basic statistics for the behavioral sciences*. Boston: Houghton Mifflin.
- Jaeger, R. M. (1997). *Survey research methods in education*. In R. M. Jaeger (Ed.), *Complementary methods for research in education* (2nd ed., pp. 449-476). Washington, DC: American Educational Research Association.
- Kerlinger, F. N. (1979). *Behavioral research: A conceptual approach*. New York: Holt, Rinehart & Winston.
- Krathwohl, D. R. (1988). *How to prepare a research proposal: Guidelines for funding and Dissertations in the social and behavioral sciences*. Syracuse, NY: Syracuse University Press.
- Levin, J.R., O'Donnell, A.M., & Kratochwill, T.R. (2003). Educational/psychological intervention research. In W.M. Reynolds & G.E. Miller (Eds.), *Handbook of psychology* (pp. 557-581). Hoboken, NJ: Wiley.
- Locke, L.F., Spirduso, W.W., & Silverman, J.J. (1999). *Proposals that work: A guide for planning dissertations and grant proposals* (4th ed.). Thousand Oaks, CA: Sage Publications, Inc.
- Maxwell, J. A. (2006). Literature Reviews of, and for, Educational Research: A Commentary on Boote and Beile's "Scholars Before Researchers."

- Maxwell, J. A. (2012). *Qualitative research design: An interactive approach* (4th ed). Thousand Oaks, CA: Sage Publications.
- Messick, S. (1989). Validity. In R.L. Linn (Ed.), *Educational measurement*. (3rd ed., pp.13-103) Washington, DC: American Council on Education and the National Council on Measurement in Education.
- Odom, S. L. Brantlinger, E., Gersten, R. (2005). Research in special education: Scientific methods and evidence-based practices. *Exceptional Children*, 71(2), 137-148.
- Pellegrino, J. W. (2016). Introduction to Special Section of *Educational Psychologist* on Educational Assessment: Validity Arguments and Evidence—Blending Cognitive, Instructional, and Measurement Models and Methods. *Educational Psychologist*, 51(1), 57–58. <https://doi.org/10.1080/00461520.2016.1150786>
- Slavin, R.E. (2003). A reader's guide to scientifically based research. *Educational Leadership*, 60(5), 12-16.
- Suri, H., & Clarke, D. (2009). Advancements in Research Synthesis Methods: From a Methodologically Inclusive Perspective. *Review of Educational Research*, 79(1), 395–430. doi:DOI: 10.3102/0034654308326349
- Walberg, H.J. (1986). Synthesis of research on teaching. In M. Wittrock (Ed.). *Handbook of research on teaching* (3rd ed., pp.214-229). New York: Macmillan.
- Wiersma, W. & Jurs, S. G. (2009). *Research methods in education: An introduction* (9th ed.) Boston: Allyn and Bacon.
- Wilkinson, A.M. (1991). *The scientist's handbook for writing papers and dissertations*. Englewood Cliffs, NJ: Prentice Hall.