

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

**EDEP 823
Research Project in Educational Psychology: Sequence I
Spring 2013
Thursday 7:20-10:00 PM
Thompson Hall L018**

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

Please see rubrics

C. Course Evaluation

1. Research Project -Sequence I: 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. Class participation and attendance policy: 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/Presentation: Sequence I	90 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

- a. Students must adhere to the guidelines of the George Mason University Honor Code [See <http://oai.gmu.edu/honorcode/>].
- b. Students must follow the university policy for Responsible Use of Computing [See <http://universitypolicy.gmu.edu/1301gen.html>].
- c. Students are responsible for the content of university communications sent to their George Mason University 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. The George Mason University 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/>].
- e. Students with disabilities who seek accommodations in a course must be registered with the George Mason University Office of Disability Services (ODS) and inform their instructor, in writing, at the beginning of the semester [See <http://ods.gmu.edu/>].
- f. Students must follow the university policy stating that all sound emitting devices shall be turned off during class unless otherwise authorized by the instructor.
- g. The George Mason University 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/>].

COLLEGE OF EDUCATION AND HUMAN DEVELOPMENT
PROFESSIONAL DISPOSITIONS

Students are expected to exhibit professional behaviors and dispositions at all times.

CORE VALUES COMMITMENT

The College of Education & 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 (Check Bb regularly for updates)

Sequence I

DATE		TOPIC/ READING/ASSIGNMENTS DUE	SUPPLEMENTAL READING
Jan 24	WK. 1	Review syllabus	American Psychological Association (2009),

		Introduction and Overview Creswell (2012) Part 1: Introduction to Educational Research (Chapter 1)	Locke et. al. (1999), Wilkinson (1991)
Jan 31	WK. 2	Framing the Research Problem Creswell (2012) Part 1: Introduction to Educational Research (Chapter 1), Chapter 2, Identifying a Research Problem	Wiersma (2009), Odom et al. (2005),
Feb 7	WK. 3	Conducting a Literature Review Creswell(2012) Chapter 3, Reviewing the Literature; Chapter 4 Specifying a purpose and Research Questions or Hypotheses Maxwell (2006) on Bb Suri & Clarke (2009)	Locke et al. (1999), Fitzgerald (2005),
Feb 14	WK. 4	Reviewing and Summarizing Empirical Research Articles Review Creswell (2012) Chapter 3 Review Suri & Clarke (2009) Bring in draft of your literature review section of your proposal to workshop	Walberg, (1986), Girden, (2001),
Feb 21	WK. 5	Developing a Conceptual Framework *Identify potential important constructs/concepts in your study and literature sources you are using for potential definitions/approaches. Consider drafting an initial concept map of how these elements inter-relate Maxwell (2012) on Bb	Fueyo (1997), Slavin (2003), Wahlberg (1986) Charman (2000), Cronbach & Meehl (1995)
Feb 28	WK. 6	Research Questions/Hypotheses/Formulations Creswell (2012) Focus on Chapter 4, and then skim chapters 5-9 for understanding questions in context of the study.	Kerlinger (1979), Krathwohl (1988)
March 7	WK. 7	No class. Dr. Sheridan out of town presenting at a conference.	

March 14	WK 8	SPRING BREAK	
March 21	WK. 9	Research Design: Quantitative Approaches Creswell (2012) Review Chapters 5 Collecting Quantitative Data Chapter 6, Analyzing and Interpreting Quantitative data Chapters 10-12 (Experimental, Correlational, and Survey designs).	Barlow (1984), Green et. A. (1989), Levin, O'Donnell, & Kratochwill, (2003).
March 28	WK. 10	Design of Study: Qualitative and Mixed Method Approaches Creswell (2012) Review Chapters 7, 8 Read chapters 13-17 (Grounded theory, ethnographic, narrative, mixed methods, action research)	Maxwell (2012), Bogdan & Biklen (2007) Designed based research collective (2003) Barab & Squire (2004); Denzin & Lincoln (2011).
April 4	WK 11	Selecting a Sample Creswell (2012) Review Chapters 5, 7 Plus find articles in your content area and/or methodological approach and take notes about their sampling strategies—what they did and why they did it. Upload a draft of your sample selection strategy to Bb journal.	Dewaele (2005), Kerlinger, (1979)
April 11	WK. 12	Selecting Measures Creswell (2012) Review Chapters 5,6, 10, 11, 12 for relevant information on measures in various quantitative design. Go to GMU's library database for: Mental Measures Yearbook, Health and Psychosocial Instruments, database (search for instruments relevant to your topic, and then do lit search for reviews/uses—estimate effect size for power analysis)	Cronbach & Meehl (1995) Messick (1989), Jaeger, (1997)
April 18	WK. 13	Data Collection Creswell (2012) Chapter 5,7 Procedures and processes	Fontana & Frey, (1998) Dewaele, (2005)

		Upload draft of your methods section	
April 25	WK. 14	Introduction to Human Subjects Review: Writing an IRB proposal Creswell (2012) Review relevant sections of Ch 1 Complete Citi training or provide documentation of prior citi-training Human Subjects Website at GMU, Download IRB submission form and draft your submission	
May 2	WK. 15	Proposed Analysis of Results Creswell (2012) Ch 6, 8,9	Heiman, (2000), Cohen, (1994)
May 9	WK. 16	Presentations	

RUBRIC FOR RESEARCH PAPER SEQUENCE I AND II

Criteria	Distinguished	LEVEL OF PERFORMANCE			Score
		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	The student stated a significant and testable hypothesis.	The student stated a testable hypothesis.	The student was unable to state a hypothesis.	

	of its significance concerning what is already known about the areas of research and/or an existing theory or theoretical framework				
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,	The student used appropriate statistical techniques or	The student used appropriate statistical	The student was unable to use appropriate	

	inferential to analyze the data (quantitative research). OR the student used appropriate coding and interpretive procedures (qualitative research).	qualitative analysis techniques.	techniques or qualitative analysis techniques.	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 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	

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.
- 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.