

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

**EDEP 823  
Research Project in Educational Psychology: Sequence I  
Spring 2015  
3 credits  
Thursday 04:30 pm-07:10 PM  
Thompson L003**

**PROFESSOR:**

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**COURSE DESCRIPTION:**

A. Prerequisites: EDEP820, EDEP821, EDEP 822 (if doctoral focus is educational psychology).  
Doctoral students of other areas may take without prerequisites.

B. Catalogue description: 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. 4<sup>th</sup> 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* (6<sup>th</sup> ed). Washington, DC: Author.

## **COURSE REQUIREMENTS, PERFORMANCE-BASED ASSESSMENT, AND EVALUATION CRITERIA:**

### **A. Course Requirements**

It is expected that each of you will:

1. Write a research proposal and present in a poster session.
2. Evaluate, present/discuss one empirical article
3. Complete Human Subjects Training and submit research proposal for review and approval.
4. Attend and participate in classroom activities that reflect critical reading of materials

### **B. Performance-based assessments**

Research Proposal and Presentation, Please see rubrics

### **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
<b>TOTAL</b>	<b>100 pts</b>

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/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 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/>).

## **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/>.

**For additional information on the College of Education and Human Development, Graduate School of Education, please visit our website <http://gse.gmu.edu/>.**

**Sequence I****Tentative Course Organization and Schedule**

<b>DATE</b>	<b>TOPIC</b>	<b>READINGS DUE</b>	<b>WORK DUE</b>
Jan 22	Introduction & Course Overview		
Jan 29	An Overview of Research Methods Identifying a Research Problem	Creswell (2012)- (Chapter 1 & 2) Slavin (2003)	In Class Assignment: Research Questions
Feb 5	Conducting a Literature Review Reviewing the Literature; Developing a Conceptual Framework; Specifying a purpose and Research Questions or Hypotheses Anne K Driscoll Visit	Creswell (2012)- (Chapter 3 & 4) Chapters 1 & 2 in APA Manual	
Feb 12	Research Design: Quantitative Approaches (Experimental, Correlational, and Survey designs).	Creswell (2012)- (Chapters 10-12) Barab & Squire (2004)	Prepare Initial Statement of Research Topic  Article Evaluation TBD
Feb 19	Research Design: Qualitative and Mixed Methods Approaches (Grounded theory, Ethnographic, Narrative).	Creswell (2012)- (Chapters 13-16)	Article Evaluation TBD
Feb 26	Participants and Sampling	Creswell (2012)- (Chapters 5 & 7)	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. Article Evaluation TBD

March 5	Measurement: Collecting Qualitative and Qualitative Data; procedures and processes  IRB Process Download IRB submission form and draft your submission	Maxwell & Loomis (2003)  Messick (1989)  Cronbach & Meehl (1995)	Complete Citi training or provide documentation of prior CITI-training Human Subjects Website at GMU Article Evaluation TBD
March 12	<b>SPRING BREAK</b>		
March 19	Review of Final Draft of Research Proposal and Electronic Submission to IRB	Fueyo & Koorland (1997)  Locke, Spirduso & Silverman (1999)	<b>IRB proposal Due</b> Article Evaluation TBD
March 26	Data Analyses and Interpretation: Preparing, organizing and analyzing qualitative and quantitative data	Creswell (2012)- (Chapters 6 & 8)  Cohen (1994)	<b>Draft of Introduction Section for Feedback</b> Article Evaluation TBD
April 2	<b>NO CLASS – Writing Day</b>		
April 9	Revising the IRB Research proposal Submissions: Revisions as needed		<b>Draft of Methods Section for Feedback</b> Article Evaluation TBD
April 16	Expected Results, Limitations, and Implications	Blaikie (2003) (Chapters 4 & 7)  Creswell (1998)- (Chapter 8 &9)	Article Evaluation TBD
April 23	Revisiting the Introduction and Abstract: Reflections	Krathwohl (1988)	Article Evaluation TBD
April 30	<b>Last Class – Poster Session</b>		<b>Project Poster</b>
May 7			<b>Research Proposal Due</b>

## RUBRIC FOR IN CLASS ASSIGNMENTS, PARTICIPATION, AND ATTENDANCE

**Exemplary (9-10 points):** The student attends all classes, is on time, is prepared and follows outlined procedures in case of absence; the student actively participates and supports the members of the learning group and the members of the class.

**Adequate (8 points):** The student attends all classes, is on time, is prepared and follows outlined procedures in case of absence; the student makes active contributions to the learning group and class.

**Marginal (7 points):** The student is on time, prepared for class, and participates in group and class discussions. The student attends all classes and if an absence occurs, the procedure outlined in this section of the syllabus is followed.

**Inadequate (6 or less points):** The student is late for class. Absences are not documented by following the procedures outlined in this section of the syllabus. The student is unprepared for class and does not actively participate in discussions. The student may fail to exhibit professional behavior and dispositions. **Excessive absences can result in additional penalties and potential withdrawal from class.**

## RUBRIC FOR POSTER PRESENTATION

**Exemplary presentation (10 points):** Keeps within the time limits; reflects poise, clarity, knowledge and interest in the content being presented; reflects a high level of preparation; make effective use of overheads, handouts, demonstrations; describes very clearly the treatment(s) under consideration; keeps the audience engaged; provides information of interest and value to audience.

**Adequate presentation (8-9 points):** Good overall presentation, but may be lacking in one or two of the criteria specified in exemplary response. May seem a little less polished or prepared, may be vague in some place, or may fail to completely engage the audience.

**Marginal presentation (6-7 points):** Presentation provides relevant information, but demonstrates only a limited understanding of the topic or project. Style, handouts, or visual aids may be less than inadequate.

**Inadequate presentation (1-5 points):** Weak overall presentation that reflects very little knowledge of topic or project. May appear very poorly prepared, or may not have followed directions. Handouts or visual aids may be inadequate or lacking.

**Unacceptable/no presentation (0 points):** Completely unsatisfactory presentation, with no reasonable reference to topic or project; or no presentation made.

**RUBRIC FOR RESEARCH PROPOSAL SEQUENCE 1**

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 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	The student provided a feasible	The student provided a	The student was unable to	

	which maximizes the reliability and validity of the measures of her/his variables. The design of the included design, procedures, sample measures	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	design which includes design, procedures, sample measures.	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	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	The student provided a research paper which missed several vital elements of a	The student was unable to provide a final draft of the research paper	

		Publication Manual Guidelines.	research paper outlined in the 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	

Reading List\*

- American Psychological Association. (2009). *Publication manual of the American Psychological Association* (6<sup>th</sup> 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
- Blaikie, N. (2003). *Social research and data analysis: Demystifying basic concepts*. In *Analyzing quantitative data*. Thousand Oaks, CA: Sage. (Chapters, 4 & 7).
- Creswell, J.W. (1998). *Qualitative inquiry and research design. Choosing among five traditions*. Sage Publications, Thousand Oaks. (Chapters 8 & 9).
- 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.
- Fueyo, V., & Koorland, M.A. (1997). Teacher as researcher: A synonym for professionalism. *Journal of Teacher Education*, 48(5), 336-344.
- 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.
- Locke, L.F., Spirduso, W.W., & Silverman, J.J. (1999). *Proposals that work: A guide for planning dissertations and grant proposals* (4<sup>th</sup> ed.). Thousand Oaks, CA: Sage Publications, Inc.
- Maxwell, J. A., & Loomis, D. M. (2003). Mixed methods design: An alternative approach. In A. Tashakkori & C. Teddlie (Eds.), *Handbook of mixed methods in social and behavioral research* (pp. 241-272). Thousand Oaks, CA: Sage.
- Messick, S. (1989). Validity. In R.L. Linn (Ed.), *Educational measurement*. (3<sup>rd</sup> ed., pp.13-103) Washington, DC: American Council on Education and the National Council on Measurement in Education.
- Slavin, R.E. (2003). A reader's guide to scientifically based research. *Educational Leadership*, 60(5), 12-16.
- *Please note that other readings will be added during the semester based on proposed research projects.*