

# Research Project in Educational Psychology: Sequence II

George Mason University  
College of Education and Human Development

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Fall, 2011

**EDEP 824 001**

**Class Meeting:** Robinson Hall A, Room 350, W 4:30-7:10 PM

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**Office Hours:** T 1:30-2:30 PM

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Other hours may be arranged by appointment.

**CATALOG DESCRIPTION: Research Project in Educational Psychology: Sequence II (3:3:0).** *Prerequisites: EDEP823.* Focuses on development and implementation of research studies in educational psychology. Students acquire skills regarding collecting, analyzing, and interpreting data. Second 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:**

- conduct statistical analyses using SPSS and AMOS
- demonstrate an understanding of software such as NVIVO when conducting qualitative analyses
- interpret findings
- report and discuss research findings
- discuss educational applications and limitations of enacted research study
- discuss future research in the area of interest
- write a research proposal for a conference submission
- develop manuscript for presentation and/or publication

## **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>

## **TEXTS:**

Green, S. B., & Salkind, N. J. (2011). *Using SPSS for Windows and Macintosh: Analyzing and understanding data* (6<sup>th</sup> edition). Upper Saddle River, New Jersey.

American Psychological Association (2009). *Publication Manual of the American Psychological Association* (6<sup>th</sup> Edition). Washington DC: American Psychological Association.

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

### **A. Course Requirements**

It is expected that each of student will:

1. Read all assigned materials for the course
2. Critique, present, and discuss an empirical article in class \*
3. Participate in classroom activities that reflect critical reading of materials
4. Write a research study and present it in class
5. Attend each class session

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

Please see rubric for final research paper.

## **C. Course Evaluation**

1. **Review and Presentation of an Empirical Article:** Students will locate, evaluate, present and discuss an empirical research article in class. The article selected should be related to student's research project (topic and methodological approach). The date of presentation will be assigned in class.
2. **Research Paper-Sequence II:** Students will use their research proposal and data collection from Sequence I and continue with the research and writing process. The final paper should now include the following: 1) Results 2) Discussion 3) Educational Applications and Limitations and 3) Future Research. Students will also have the opportunity to revise the introduction and the methods section. Research papers must adhere to the APA Publication Manual Guidelines.
3. **Research Paper Presentation: Sequence II.** Students will present their final research project in a poster session.
4. **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**

Review and Presentation of an Empirical Article	10pts
Research Paper Presentation: Sequence II	10pts
Final Research paper: Sequence II (PBA)	70pts

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%		

## COLLEGE OF EDUCATION AND HUMAN DEVELOPMENT STATEMENT OF EXPECTATIONS:

### *Student Expectations*

- Students must adhere to the guidelines of the George Mason University Honor Code [See <http://academicintegrity.gmu.edu/honorcode/>].  
Please note that:
  - “Plagiarism encompasses the following:
    1. Presenting as one's own the words, the work, or the opinions of someone else without proper acknowledgment.
    2. Borrowing the sequence of ideas, the arrangement of material, or the pattern of thought of someone else without proper acknowledgment.”  
(from Mason Honor Code online at <http://mason.gmu.edu/~montecin/plagiarism.htm>)
  - Paraphrasing involves taking someone else’s ideas and putting them in your own words. When you paraphrase, you need to cite the source.
  - When material is copied word for word from a source, it is a direct quotation. You must use quotation marks (or block indent the text) and cite the source.
  - Electronic tools (e.g., SafeAssign) may be used to detect plagiarism if necessary.
  - Plagiarism and other forms of academic misconduct are treated seriously and may result in disciplinary actions.
  
- 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/>].
  
- Students must follow the university policy for Responsible Use of Computing [See <http://universitypolicy.gmu.edu/1301gen.html>].

- 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.
- Students must follow the university policy stating that all sound emitting devices shall be turned off during class unless otherwise authorized by the instructor.
- Students are expected to exhibit professional behaviors and dispositions at all times.

### *Campus Resources*

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

## EDEP 824: Tentative Course Organization and Schedule

DATE	TOPIC	ASSIGNED READING	WORK DUE
August 31	Review syllabus Introduction and Overview		
September 7	Research Questions/hypotheses Methods Proposed Analyses	Hayes, (2004)  See Blackboard for guidelines	Presentation of Research Proposals
September 14	Introduction to SPSS Data Coding Data Entry Data Cleaning	Unit 1: Getting Started with SPSS (G&S,2011) Unit 2: Creating and working with data files (G&S,2011)	Bring Data to Class  Article presentation
September 21	APA Style (Sixth Edition) Creating Composite Variables	APA writing guidelines (APA Manual)  Unit 3: Working with data (G&S,2011) Unit 5: Creating variables and computing descriptive statistics(G&S,2011)  Blaikie (2003)-Chapter 1	Article Presentation
September 28	Descriptive Statistics    Qualitative Data Analyses/Reduction and Data Reconstruction	<i>Annotated SPSS Output- Descriptive Statistics.</i> Available on the Web at: <a href="http://www.ats.ucla.edu/stat/spss/output/descriptives.htm">http://www.ats.ucla.edu/stat/spss/output/descriptives.htm</a>  <i>Annotated SPSS Output - Correlation.</i> Available on the Web at: <a href="http://www.ats.ucla.edu/stat/spss/output/corr.htm">http://www.ats.ucla.edu/stat/spss/output/corr.htm</a>  Blaikie (2003)-Chapter 4 Heath (1997) Creswell (1998)-Chapter 8	Article presentation

October 5	Assessing Reliability and Validity: Developing Robust Measures	Unit 9: Scaling Procedures (G&S,2011) <a href="http://ccnmtl.columbia.edu/projects/qmss/measurement/validity_and_reliability.html">http://ccnmtl.columbia.edu/projects/qmss/measurement/validity_and_reliability.html</a>	Construction of Tables  Article presentation
October 12	No Class		Revised Methods Section
October 19	Data Analyses t tests Univariate and multivariate Analysis of Variance  Qualitative Analyses	Unit 6, 7, 10: t tests, ANOVA, MANOVA and Non-Parametric Statistics (G&S,2011)  Blaikie (2003)-Chapter 7  Creswell (1998)-Chapter 8	Article presentation
October 26	Data Analyses Regression and SEM	Unit 8: Regression (G&S,2011)  SEM: Tenko and Marcoulides (2006, Chapter 1)	Article presentation
November 2	Interpretation of Results: Quantitative/Qualitative Data	Kitsantas, Reiser and Doster (2004)  Brantlinger et al., (2005)	Results Section (Draft)  Article presentation
November 9	Discussion Were the Research Questions/Hypotheses Supported? Relating the Findings to Previous Research Studies	Bem (1987) Creswell (1998) Chapter 9	Article presentation
November 16	Discussion Limitations of the research, educational	Creswell (1998)- Chapter 9 Bem (1987)	Article presentation

	implications and future research Revisiting the Introduction Section		
November 23	Thanksgiving Holiday-- No class		
November 30	Preparing research proposals for conference submission and presentation	Formats: <a href="http://www.aera.net/uploadedFiles/Meetings_and_Events/2010_Annual_Meeting/2009AM%20Call%20for%20Proposals.pdf">http://www.aera.net/uploadedFiles/Meetings_and_Events/2010_Annual_Meeting/2009AM%20Call%20for%20Proposals.pdf</a> Organizations: <a href="http://www.apa.org/">www.apa.org/</a>  American Psychological Association: Division 15 Association for Psychological Science <a href="http://www.psychologicalscience.org/convention/">http://www.psychologicalscience.org/convention/</a> and others depending on content	Discussion Section (Draft)  Article Presentation
December 7	Reflections, Future Research, and Conclusions	Presentations of Research Conference Proposals	Poster Session
December 14			Final Research Paper

## Readings \*

- Brantlinger, E., Jimenez, R.,Klingner, J., Pugach, M., Richardson, V. (2005). Qualitative studies in special education. *Exceptional Children*, 71(2), 195-207.
- Bem, D. J. (1987). Writing the empirical journal article. In M. P. Zanna & J. M. Darley (Eds.), *The complete academic: A practical guide for the beginning social scientist* (171-201). New York: Random House.
- Blaikie, N. (2003). Social research and data analysis: Demystifying basic concepts. In *Analyzing quantitative data*. Thousand Oaks, CA: Sage. (Chapters, 1, 4 & 7).
- Creswell, J.W. (1998). *Qualitative inquiry and research design. Choosing among five traditions*. Sage Publications, Thousand Oaks. (Chapters 8 & 9).
- Hayes, J.M. (2004). A pharmacist's guide to critically evaluate clinical and pharmacoeconomic studies. *Drug Topics*, 1-8.
- Heath, A. W. (1997). The proposal in qualitative research. *The Qualitative Report*, 3 (1) (<http://www.nova.edu/ssss/QR/QR3-1/heath.html>).
- Kitsantas, A., Reiser, B., & Doster, J. (2004). Goal setting, cues, and evaluation during acquisition of procedural skills: Empowering students' learning during independent practice. *Journal of Experimental Education*, 72(4), 269-287.
- Tenko, R. & Marcoulides, G. A. (2006). A first course in structural equation modeling (2<sup>nd</sup> edition). Lawrence Erlbaum Associates, Publishers. Chapter 1.

\*Other reading may be included depending on the student's research projects

**Other Recourses**

University of California-Los Angeles (UCLA), <http://www.ats.ucla.edu/stat/>  
The site provides links to a wide range of quantitative techniques and applications

Measurement, Quantitative Methods in Social Sciences (QMSS) E-Lessons.  
[http://ccnmtl.columbia.edu/projects/qmss/meas\\_about.html](http://ccnmtl.columbia.edu/projects/qmss/meas_about.html) Focus on first three sections

Standards for reporting on empirical research in AERA journals. <http://www.aera.net/?id=1480>

**Rubric****Research Proposal Rubric, Part II**

<b>Criteria</b>	<b>Outstanding (4)</b>	<b>Competent (3)</b>	<b>Minimal (2)</b>	<b>Unsatisfactory (1)</b>
<b>Data Analysis and Results</b> <ul style="list-style-type: none"> <li>Describe data analysis plan</li> <li>Present results</li> </ul>	Excellent description of appropriate statistical techniques (descriptive, inferential statistics for quantitative research) and/or coding procedures (qualitative research) and expected results.	Adequate description of appropriate statistical techniques (descriptive, inferential statistics for quantitative research) and/or coding procedures (qualitative research) and expected results.	Significant weaknesses in the description of statistical techniques (descriptive, inferential statistics for quantitative research) and/or coding procedures (qualitative research) and expected results.	Appropriate data analysis techniques and or description of expected results were not provided.
<b>Discussion, Limitations and Educational Implications</b> <ul style="list-style-type: none"> <li>Discuss findings</li> <li>Connect findings to prior research</li> <li>Identify limitations</li> <li>Discuss implications of findings</li> </ul>	Excellent discussion of findings and how they relate to prior research, discuss limitations and educational implications of research.	Adequate discussion of findings and appropriate limitations and educational implications. Findings were not discussed in detailed how they relate to prior research and critical limitations or implications were not addressed.	Significant weaknesses in the discussion of findings and of limitations and educational implications. Few were identified and/or were inappropriate.	Discussion of limitations and educational implications was not provided.
<i>Additional Elements</i>				
<b>Use of Peer-Reviewed Research</b>	Contains references to 10 or more relevant empirical studies	Contains references to at least 10, the majority of which are relevant	Contains references to 10 studies but most are irrelevant	Does not include at least 10 peer reviewed studies.
<b>Discussion of the Literature</b>	Clearly spoken, topic-specific jargon are defined, does not rely on quotes from papers; includes quotes strategically where appropriate	Most topic-specific jargon are defined OR inclusion of some lengthy or inappropriate quotes	Overuse of jargon AND quotes that are lengthy or inappropriate	Fragmented and unclear discussion; over reliance on quotes interrupts the flow of the content and leaves little room for student's synthesis
<b>Abstract</b>	Clearly and sequentially conveys the content of paper	Gives a general overview of paper topic, but no sequential elaboration of contents	Does not provide a clear representation of paper contents	Not provided
<b>Writing Style</b>	Paper is coherent, concise and well structured with a clear	Paper is coherent, concise and well structured with a clear	Paper conveys the main points of the topic but additional polish	Paper is incoherent and/or overly wordy with little

	purpose.	purpose and few errors.	is needed	structure or purpose; difficult to appreciate the content
<b>Technical Merit (spelling, grammar, typographical errors)</b>	Error free	A few minor errors	Several errors or incoherent sentences	Numerous errors
<b>Citation of sources</b>	Appropriate citation of sources	A few missing citations	Several missing citations	Lack of citations
<b>Paper guidelines and APA style (e.g., references, levels of heading, margins)</b>	APA guidelines were followed	APA guidelines were followed with a few instances of incorrect formatting and style	APA guidelines were used but there are several instances of incorrect formatting and style.	APA style was not used.