

George Mason University
College of Education and Human Development
Education Research EDRS 590, Sec 001: 3 credits

Meeting Day/time: W 4:30-7:10 p.m.

Location: Robinson A350

Professor:

Office Hours: 4:30-5:30 T, W 3:00-4:15, and by appointment (contact by email preferred)

Phone: (703) 993 9713 [email preferred]

Email: akelly1@gmu.edu

Course Description:

EDRS 590. Develops skills, insights, and understanding to perform research, with emphasis on interpreting and applying research results. Critique research, and use findings in educational settings. This is an introductory course in the fundamental concepts, principles and methods of educational research. It is a survey course that serves as a foundation for practitioners who have little of no experience in educational research. Students who plan to participate in extensive applied and action educational research are strongly encouraged also to take a course in quantitative and qualitative analysis. EDRS 590 is prerequisite for more advanced research courses in the Education Psychology Master of Science degree.

Objectives: As a result of this course, the students will:

- ☐ become literate in the basic concepts, principles, and techniques of educational research
- ☐ acquire basic skills in the analysis and interpretation of research data
- ☐ appreciate the underlying cognitive processes involved in conducting educational research as a form of thinking and problem solving
- ☐ acquire the skills associated with the critical reading and evaluation of the educational research literature
- ☐ engage in collaborative action research

Description

Successful attainment of course goals requires the mastery of many competencies. Four significant areas will be assessed through various evaluation methods:

1. **Comprehension.** Students can demonstrate comprehension of the basic concepts related to the methods and analysis of educational research.
2. **Application.** Students can apply appropriate techniques of analysis to specific research problems.

3. **Literacy.** Given a research report, the students are able to classify, interpret, and evaluate educational research reports according to the concepts and principles studied in the course.
4. **Professional Connections.** Students can relate and apply the principles and techniques of educational research to their areas of professional studies.

Educational Psychology Program Standards

Across the many course in the Educational Psychology, a number of standards will be addressed. These standards are noted, below. Those emphasized most strongly in this course are in bold text.

1. Candidates will demonstrate an understanding of principles and theories of learning, cognition, motivation, and development as they apply to a wide variety of contemporary learning contexts.
2. Candidates will use their *knowledge, skills, and dispositions* to apply principles and theories of learning, cognition, motivation, and development to analyze and develop instruction in applied settings.
3. **Candidates will demonstrate an understanding of the basic concepts, principles, techniques, approaches, and ethical issues involved in educational research.**
4. **Candidates will use their knowledge of quantitative and qualitative research methodology to critically read and evaluate quantitative and qualitative research articles.**
5. **Candidates will use their knowledge of quantitative and qualitative research methodology to develop a research proposal and conduct research.**
6. Candidates will demonstrated critical thinking, oral presentation, technological, and writing skills as they are used in the profession. These include:
 - a. **Knowledge and use of APA style**
 - b. **Oral presentations**
 - c. Poster presentations
 - d. **Article abstracts**
 - e. **Research proposals**
 - f. **Literature reviews**
 - g. **Technological skills (including library/reference skills, interactive displays skills, data analysis skills)**

Readings:

Maxwell, J. (2005). *Qualitative research design*. Thousand Oaks, CA: Sage. (required)
McMillan, J. H., & Schumacher, S. (2006). *Research in education*. New York: Pearson. (Required) [M & S in the syllabus]

Tjeerd Plomp & Nienke Nieveen (2008). Introduction to Educational Design Research [free download at: http://www.slo.nl/downloads/2009/Introduction_20to_20education_20design_20research.pdf/download]

Course Requirements:

- Students will attend all classes, and participate in discussions. If you must be absent, please inform the instructor via email.
- Students will read assigned readings **before** each class and will be prepared to discuss the material). The progress through the various chapters will reflect the preparation of the students for the material.
- Students will conduct in-class research as directed by the professor;
- Students will demonstrate archival and critical research skills by locating six or more research papers on an educational research topic of their choice.
- Students will submit a 15-20 page paper (double-spaced; not including references) reviewing the literature in this area of interest and commenting on the research methods used in the studies.
- The paper should follow APA style, as outlined in the *Publication Manual of the American Psychological Association* (2001, 5th edition)—available from the American Psychological Association, Order Department, P.O. Box 2710, Hyattsville, MD 20784. Many websites summarize the format. The site from Purdue University is available here: <http://owl.english.purdue.edu/owl/resource/560/01/>.

Grading:

Online quizzes: 3 quizzes * 20 points, each = 60 points

Literature review: 30 points. Identify a topic of interest. Locate at minimum three qualitative and three quantitative articles on this topic. Introduce the topic, generally, e.g., what is known, not known? Describe the research strengths and weaknesses of each of the studies using skills taught in the class. Synthesize the findings from the six studies into a coherent statement about your topic (to the extent that the studies allow such a synthetic statement).

Please let the instructor know via email if you will miss a class or will be unavoidably late with an assignment.

Class participation: 10 points.

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%		

ASSESSMENT RUBRIC FOR LITERATURE REVIEW

Criteria	Excellent	Adequate	Needs Significant Changes
Peer-Reviewed Research	Contains references to 7 or more empirical studies (5)	Contains references to 6 studies (4)	Does not include at least 6 peer reviewed studies (3)
APA Style	No significant errors (5)	Contains few significant errors in style, reader can still interpret and appreciate the content of the paper (4)	Paper does not adhere to APA-Style format (3)
Length	Paper adheres to 12 page limit (5)	Paper length is 1 page below the ascribed limit (4)	Paper is 2 or more pages short (3)
Abstract	Conveys clearly and sequentially the content of paper (5)	Gives a general overview of paper topic, but no sequential elaboration of contents (4)	Key information is not included in the summary, or abstract does not provide a clear representation of paper contents (3)
Discussion of the Literature	Clearly written, all topic-specific jargon are well-defined, author does not rely on quotes from papers or includes them strategically (5)	Clearly written, all topic-specific jargon are defined, author includes quotes from papers, but quotes are lengthy (4)	Too much reliance on quotes taken directly from the literature so that it interrupts the flow of the content and leaves out room for student's own synthesis of the topic (3)
Writing	Paper flows coherently, language is concise, thesis and discussion are well-structured, purpose of the paper is evident (5)	Paper conveys the main points of the topic (4)	Errors in style format make it difficult to appreciate the content of this paper (3)

Technical Merit	Contains NO major misspellings or repetitive grammatical mistakes (5)	Contains few major misspellings or repetitive grammatical mistakes (4)	Contains major misspellings and repetitive grammatical mistakes (3)
Interpretations	Insightful, original synthesis, goes beyond the scope of the literature (5)	Analytical, draws logical conclusions based upon evidence from literature (4)	Discussion does not summarize well the main points of the thesis or provide evidence from peer reviewed studies to support conclusions (3)

ASSESSMENT RUBRIC FOR PARTICIPATION AND ATTENDANCE

ELEMENT	LEVEL OF PERFORMANCE			
	Distinguished (9-10 pts.)	Proficient (8 pts.)	Basic (7 pts.)	Unsatisfactory (6 or less pts.)
Attendance & Participation 10 pts. Possible	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.	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.	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.	The student is late for class. Absences are not documented by following the procedures outlined in this section of the syllabus. The student is not prepared for class and does not actively participate in discussions.

Date	Activity	Comments
Class session 1 9/1	Introduction to Course Expectations and Framework Fundamental Principles of Educational Research Discuss M & S Chapter 1 Lu'courpan	The researcher's orientation The importance of task design Locating research library/NSF Download, read and bring to next class an article in the Educational Researcher journal by Kelly and Yin (2007). Review: pp. 31-44.
Class session 2 9/8	Fundamental Principles of Educational Research Discuss M & S Chapters 1-5	
Class session 3 9/15	Quantitative Research Designs and Methods Discuss M & S Chapters 6-11	Quiz 1 Character of Education Research assigned
Class session 4 9/22	Quantitative Research Designs and Methods Discuss M & S Chapters 6-11	
Class session 5 9/29	Quantitative Research Designs and Methods Discuss M & S Chapters 6-11	
Class session 6 10/6	Qualitative Research Designs and Methods Discuss M & S Chapters 12-14	Quiz 1 DUE Quantitative Methods Quiz 2 assigned
Class session 7 10/13	Qualitative Research Designs and Methods Discuss M & S Chapters 12-14	Maxwell Chapter 3
Class session 8 10/20	Emerging Methods of Research M & S Chapter 15	Maxwell Chapters 4-6 Quiz 2 DUE
Class session 9 10/27	Emerging Methods of Research M & S Chapter 15	Qualitative Methods Quiz 3
Class session 10 11/3	Analytical Research M & S Chapter 16	

Class session 11 11/10	Design research See Plomp and Nieveen	
Class session 12 11/17	Ethical Issues in Research	Qualitative Methods Quiz 3 DUE
Class session 13 11/24	Thanksgiving	
Class session 14 12/1	Evaluation and Policy Research M & S Chapter	http://research.gmu.edu/docs/RCR.pdf Ethical training (due next week)
Class session 15 12/8	17 Writing Research Proposals	Literature Review Paper Due electronically Subject: "Your Last Name EDRS 590 Literature Review Summer 2010" Send email confirmation of ethical training/certificate

ACADEMIC INTEGRITY

GMU is an Honor Code university; please see the University Catalog for a full description of the code and the honor committee process. The principle of academic integrity is taken very seriously and violations are treated gravely. What does academic integrity mean in this course? Essentially this: when you are responsible for a task, you will perform that task. When you rely on someone else's work in an aspect of the performance of that task, you will give full credit in the proper, accepted form. Another aspect of academic integrity is the free play of ideas. Vigorous discussion and debate are encouraged in this course, with the firm expectation that all aspects of the class will be conducted with civility and respect for differing ideas, perspectives, and traditions. When in doubt (of any kind) please ask for guidance and clarification.

GMU EMAIL ACCOUNTS

Students must activate their GMU email accounts to receive important University information, including messages related to this class.

OFFICE OF DISABILITY SERVICES

If you are a student with a disability and you need academic accommodations, please see me and contact the Office of Disability Services (ODS) at 993-2474. All academic accommodations must be arranged through the ODS. <http://ods.gmu.edu>

OTHER USEFUL CAMPUS RESOURCES: WRITING CENTER: A114 Robinson Hall; (703) 993-1200; <http://writingcenter.gmu.edu>

UNIVERSITY LIBRARIES "Ask a Librarian"
<http://library.gmu.edu/mudge/IM/IMRef.html>

COUNSELING AND PSYCHOLOGICAL SERVICES (CAPS): (703) 993-2380;
<http://caps.gmu.edu>

UNIVERSITY POLICIES The University Catalog, <http://catalog.gmu.edu>, is the central resource for university policies affecting student, faculty, and staff conduct in university affairs.

COLLEGE OF EDUCATION AND HUMAN DEVELOPMENT STATEMENT OF EXPECTATIONS:

All students must abide by the following:

Students are expected to exhibit professional behavior and dispositions. See <http://gse.gmu.edu/facultystaffres/profdisp.htm> for a listing of these dispositions.

Students must follow the guidelines of the University Honor Code. See <http://www.gmu.edu/catalog/apolicies/#Anchor12> for the full honor code.

Students must agree to abide by the university policy for Responsible Use of Computing. See <http://www.gmu.edu/facstaff/policy/newpolicy/1301gen.html>. Click on responsible Use of Computing Policy at the bottom of the screen.

Students with disabilities who seek accommodations in a course must be registered with the GMU Disability Resource Center (DRC) and inform the instructor, in writing, at the beginning of the semester. See <http://www.gmu.edu/student/drc/> or call 703-993-2474 to access the DRC.