

George Mason University
College of Education and Human Development

EDRS 590 001 Methods of Educational Research
Spring 2005

Instructor: Dr. Karen Banks
Class Time: M 7:20-10:00 pm
Location: IN 330
Office Hours: Before class or by appointment

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Course Description: Develops skills, insights and understanding of basics to perform research, with emphasis on interpretation and application of research results. The course critiques research and uses findings in educational settings.

Nature of Course Delivery: This course includes multiple instructional strategies. Individual session formats will vary and may include lecture, small group/ large group discussion, hands-on, interactive work, student presentations, and cooperative learning.

Class Objectives:
Students will be able to:

- Share results of current research on educational issues,
- Recognize and describe different methods of research, including quantitative and qualitative analyses, and variations within these categories,
- Use electronic resources to find research relevant to a selected topic,
- Compare uses of research methodology in different settings,
- Write a literature review in education of psychology,
- Critically evaluate educational research in terms of validity and applicability to their field,
- Reflect on uses of research, methodology and current research findings.

Required Texts:

Arhar, J.M., Holly, M.L., & Kasten, W.C. (2001) Action Research for Teachers: Traveling the Yellow Brick Road. Upper Saddle, NJ: Merrill Prentice Hall.

McMillan, J.H. (2004) Educational Research: Fundamentals for the Consumer. New York: Harper Collins College Publishers.

Standards

A. National Board of Professional Teaching Standards:

Proposition 4: Teachers think systematically about their practice and learn from their experience.

B. National Technology Standards:

Standard IV: Teachers apply technology to facilitate a variety of effective assessment and evaluation strategies.

Standard V: Teachers use technology to enhance their productivity and professional practice.

Learning Outcomes

A. Students will be able to:

1. Articulate the role of educational research and systematic evidence in the improvement of teaching.
2. Use educational research literature as a basis for reflecting on and improving their teaching practice.
3. Make explicit linkages between research and practice.
4. Distinguish between the purposes and methods of theoretical, applied, and action research as well as quantitative and qualitative research.
5. Explain the fundamentals of validity and reliability and articulate the potential threats to validity within various research paradigms.
6. Critique the quality of research studies within various paradigms.
7. Describe the purpose and cycle of action research.
8. Write a review of literature.
9. Use technology to assist in locating, using, and conducting research.

B. Outcomes and Standards

<u>Learning Outcomes</u>	<u>NBPTS Propositions</u>	<u>NET Standards</u>
1	4	V
2	4	IV and V
3	4	IV and V
4	4	IV
5	4	IV
6	4	IV
7	4	IV and V
8	4	IV and V
9	4	IV and V

<u>Dates:</u>	<u>Topics/Assignments</u>
1/24	Input, Overview of Course Begin Journal
1/31	Ch 1 Mc Research in Education Ch 1 & 2 YBR
2/7	Ch 2 Mc Research Problems
2/14	Ch 3 & 4 Reviewing Research
2/21	Field Trip to Johnson Ctr. Library- meet at Johnson Ctr. Collect 3 research articles to share in class Four Journals Due
2/28	Ch 5 Mc Subjects/Participants Ch 3 YBR Project Due 7-10 Websites-annotated
3/7	Ch 6 Mc Foundations of Measurement Ch 4 YBR In Class Activity-Bring in 3 research articles to critique
3/14	SPRING BREAK
3/21	Ch 7 Mc Types of Ed Measurements Four Journals Due
3/28	Ch 8 Mc Nonexperimental Quantitative Design Project Due Summary of 3 research articles
4/4	Ch 9 Mc Experimental Design In Class Activity Proposed Research
4/11	Ch 11 Mc Qualitative and Mixed Method Designs Four Journals Due
4/18	Ch 10 Mc Analyzing Statistical Inferences Ch 10 and 12 YBR
4/25	Ch 12 Mc Analyzing Discussion and Conclusions Project Due Glossary

5/2 Ch 13 Mc Putting It All Together
Section 7 YBR
**Project Due Pilot Research Project
Begin Class Sharing of Projects**

5/10 **Continue Class Sharing of Projects
Final Class**

Grades:

Participation/Journal

Journal should include reflections of class discussions, research reviewed and personal application of research to fields of interest. Turn in typed entries at journal checks scheduled through class schedule (12 total due, minimum of one page in length).

Participation includes involvement in class discussion, sharing research articles for analysis and in class activities.

20 pts.

7-10 Annotated Websites and criteria for selection, that are useful for research around a selected topic. Criteria should include a definition of the criteria, and a scale for rating the criteria. Apply the criteria to each website and give the website an overall rating.

20 pts.

Summary of 3 research articles to include: state the type of research, state the purpose of the research, describe the sample and procedure/methods, summarize the results, author's conclusions and comment critically on the research (your insights).

20 pts.

Glossary of significant terms related to research. Minimum of 20, include term and a definition in your own words.

10 pts.

Research plan project to include:

Literature review (include a minimum of 5 references to support your research)

Purpose/Hypotheses

Proposed data collection (include a proposed sample or description of tools)

Proposed data analysis (set up a table, graph, or chart to present pilot data)

Insights/Revisions (your insights)

30 pts.

Grade scale:

100%-93% - A 92%-85% - B 84%-77% - C 76%-70% - D <69% - F

The Graduate School of Education expects that all students abide by the following:

Students are expected to exhibit professional behavior and dispositions. See gse.gmu.edu for a listing of these dispositions.

Students must follow the guidelines of the University Honor Code. See http://www.gmu.edu/catalog/apolicies/#TOC_H12 for the full honor code.

Students must agree to abide by the university policy for Responsible Use of Computing. See <http://mail.gmu.edu> and click on Responsible Use of Computing 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 www.gmu.edu/student/drc or call 703-993-2474 to access the DRC.