

**George Mason University
College of Education and Human Development
Secondary Education Program**

**EDCI 559:002: Research and Assessment in Elementary Education
Fall Semester, 2009**

Instructor: Dr. Debra Sprague
Date and Time: September 2 – December 16 (Wednesdays – 4:30-7:10 pm)
Class Location: Robinson A350
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Office Hours: By appointment

Course Description

- A. Prerequisites: Admission into GMU Elementary Education Graduate program; capstone course for degree and must be taken last in sequence.
- B. This course is designed to help teacher candidates understand various research paradigms utilizing research literature and systematic evidence to improve teacher practice, and to further their skills at assessment of learning outcomes. Course emphasizes linking research and practice and making instructional decisions based on systematically collected data.

Nature of Course Delivery

This course includes multiple instructional strategies. Individual session formats vary and may include lecture, small group/large group discussion, hands-on, interactive work, student presentations, and cooperative learning. Practical applications of theory are explored in group activities. Students are expected to read the assigned materials prior to class so that they are able to actively participate in small and large group discussions.

Standards

- A. National Board for Professional Teaching Standards:
 - Proposition 1: Teachers are committed to students and learning
 - Proposition 3: Teachers are responsible for managing and monitoring student learning
 - 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.
- C. The [Virginia State Technology Standards for Instructional Personnel](#):
 - 1. Instructional personnel shall be able to demonstrate effective use of a computer system and utilize computer software.
 - 2. Instructional personnel shall be able to apply knowledge of terms associated with educational computing and technology.

3. Instructional personnel shall be able to apply computer productivity tools for professional use.
4. Instructional personnel shall be able to use electronic technologies to access and exchange information.

Learning Outcomes

- A. Students will be able to:
1. Articulate the role of systematic evidence in the improvement of teaching and learning.
 2. Use educational research literature as a basis for reflecting on and improving their teaching practice.
 3. Make explicit linkages between research and assessment 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, specifically in relationship to assessment of their learners.
 8. Design appropriate and authentic assessments and analyze student data.
 9. Design an action research study based on research and student assessments to address a school-based problem.
 10. Use technology to assist in locating, using, conducting research, and analyzing data.

B. Outcomes and Standards

Learning Outcomes	NBPTS Propositions	NETS Standards
1	1, 3	V
2	1, 3, 4	IV & V
3	1, 3, 4	IV & V
4	4	V
5	4	V
6	4	V
7	1, 3, 4	IV & V
8	1, 3	IV & V
9	4	IV & V
10	4	V

Texts

A. Required Texts

- Mertler, C. A. & Charles, C. M. (2005). *Introduction to educational research* (6th ed). Boston: Pearson Allyn & Bacon.
- Mills, G. E. (2008). *Action research: A guide for the teacher researcher* (3rd ed.). Upper Saddle River, NJ: Pearson Merrill Prentice Hall.
- Tuttle, H. G. (2009). *Formative assessment: Responding to your students*. Larchmont, NY: Eye on Education.

B. Strongly Recommended

American Psychological Association. (2001). *Publication manual of the American Psychological Association* (5th ed.). Washington, DC: Author.

Course Requirements

All homework assignments will be submitted electronically using the appropriate Microsoft Office application by the date and time specified in the syllabus.

A. Assignments

Assignment	Points
Action Research Proposal Draft Components 1. Rationale and research question 2. Literature review/Matrix 3. Context and Intervention 4. Data Collection Plan/Student Assessment 5. Data Analysis Plan	40
Quantitative Data Collection and Report	10
Qualitative Data Collection and Report	10
Final Action Research Proposal (PBA)	21
Action Research Proposal Presentation	9
Class Participation	10
Total	100

Components of Action Research Proposal (40 points)

- Part One: Introduction, rationale and research question (5 points)
- Part Two: Literature review (5 points); synthesis matrix (5 points)
- Part Three: Context and Intervention – description of the school, community, classroom and student population (5 points); description of instructional intervention (5 points)
- Part Four: Data Collection and Student Assessment Plan: specific plan on the data you will collect to answer your research question (5 points), and formative and summative student assessments designed to gather those data (5 points)
- Part Five: Data Analysis Plan – describe how you would analyze them, if you collected them (5 points)

Quantitative Data Collection and Report (10 points)

Students will develop a short survey instrument with 10-12 questions, collect data from at least 12 people, analyze the data using basic statistics, and write up a short report. This does not have to be related to the focus of the Action Research Proposal.

Qualitative Data Collection and Report (10 points)

Students will collect qualitative data through interviews, observation, or a focus group, code and interpret the data and write a short report. This does not have to be related to the focus of the Action Research Proposal.

Final Action Research Proposal (21 points)

This is the major assignment for this class and is the Performance Based Assessment (PBA) for the course. The final written proposal will include the five components plus a short reflection.

Action Research Proposal Presentation (9 points)

The presentation will be based on the written proposal. Students will prepare and bring copies of a one-page summary for distribution to peers.

Class Participation (10 points)

Students will be evaluated on their level of class participation. Attention will be paid to their level of interaction in discussions of the readings, group work, online postings, and other learning activities. Readings must be completed before class and drafts of assignments must be provided to your learning group on time to facilitate effective feedback discussions. Attendance, punctuality, preparation and engagement are essential.

B. Final Grading Scale

94-100 = A
90-93 = A-
88-89 = B+
80-87 = B
70-79 = C
Below 70 = F

COLLEGE OF EDUCATION AND HUMAN DEVELOPMENT STATEMENT OF EXPECTATIONS:

Students are expected to exhibit professional behavior and dispositions. See <http://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.

University and Elementary Program Policies

Attendance. This is an advanced graduate level course, therefore the quality of work, attendance, and informed participation are expected to be of the highest caliber. Unless it is an emergency situation, no absences are excused. Should you need to miss a class, it is your responsibility to inform the instructor ahead of time, turn in your assignments on time, collect any notes/assignments from a colleague, and do your utmost to remain current in the class. (See GMU Catalog, page 32.)

Late Assignments. Points will be deducted from late assignments without the prior consent of the instructor.

Quality of Written Work. Written work should be word-processed in 12-point font. Legibility, organizational clarity, and standard English usage and mechanics are expected. Unacceptable work may be returned for editing prior to grading. Quotations, paraphrases, and references must appear in proper APA format. If you require special assistance, see the instructor.

Cell Phones. The university has a policy that requests students to turn off pagers and cell phones before class begins. One cell phone will remain on in class that is registered with the Mason Alert System.

Honor Code. To promote a stronger sense of mutual responsibility, respect, trust, and fairness among all members of George Mason University and with the desire for greater academic and personal achievement, George Mason University has set forth a code of honor that includes policies on cheating and attempted cheating, lack of participation in group work, plagiarism, lying and stealing. Detailed information on these policies is available in the GMU Student Handbook.

Individuals with Disabilities. The university is committed to complying with the Rehabilitation Act of 1973 and the Americans with Disabilities Act of 1990 by providing reasonable accommodations for applicants for admission, students, applicants for employment, employees, and visitors who are disabled. Students requiring specific accommodations for a disability should contact the Disability Resource Center at 993-2474, or the University Equity Office at 993-8730.

EDCI 559 Course Schedule

Date	Topics and Activities	Readings	Deliverables & Due Dates
9/2	Introduction to syllabus Overview of Action Research Preparing for Library Search Session		
9/9	Library Search Reviewing the Literature	Mertler Chapters 3, 4 Mills Chapters 1, 2	Email by 8 pm Sunday 9/6: 3 research topics to search on.
9/16	Component 1: Rationale and Research Questions	Mertler Chapters 1, 5, 6	Email by 8 pm Sunday 9/13: Summary of 3 research articles related to your topic.
9/23	Component 2: Review and Synthesis of Literature Types of Research Designs	Mertler Chapters 2, 11 Mertler <u>Skim Chapters 12, 13, 14</u>	Identify the type of research design in assigned articles and the 3 summarized last week. Bring to class.
9/30	Component 3: Context and Intervention. Student Assessment as evidence. Designing Formative and Summative Assessments	Tuttle Chapters 1-6	Components 1 & 2: Introduction, research question and literature review. Due Sunday 9/27 by 8 pm.
10/7	Component 4: Research Design, Methods, Quantitative Data Collection	Mertler Chapter 7 Miles Chapter 3	
10/14	NO CLASS Columbus Day Holiday		Component 3: Context, population, intervention. Due Sunday 10/11 by 8 pm.
10/21	Component 5: Data Analysis	Mertler Chapter 8, Appendix A Mills Appendices B and C	
10/28	Qualitative Research	Mertler Chapter 10 Mills Chapter 6	Quantitative Data Collection Results and Interpretation Due Sunday 10/25 by 8 pm.
11/4	Analyzing Qualitative Data		Component 4: Method and data sources and formative and summative assessment plans.
11/11	Displaying results, summarizing data, PowerPoint presentations		Qualitative Data Collection Results and Interpretation due Sunday 11/8 by 8 pm.
11/18	Action Research: Findings, Conclusions, Implications	Mills Chapters 7, 8, 9	Component 5: Data analysis plan due Sunday 11/15 by 8 pm.
11/25	Thanksgiving week. No class. Work on your Action Research Proposal and Presentation		
12/2	Proposal Presentations		
12/9	Proposal Presentations Ethics, Human Subjects	Mertler Chapter 1, pp. 8-20 Mills Chapter 5	Final proposal due—all parts—by Sunday
12/16	Proposal Presentations		