

George Mason University
College of Education and Human Development
Graduate School of Education

EDCI 559 Research and Assessment in Elementary Education, 3 credits

Spring 2012 (Teach For America cohort)

Wednesdays 5 pm - 10 pm, Arlington Founders Hall 310 (then 312)

Jan. 25 – May 16, 2012

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Course Description

Provides teacher candidates an understanding of research paradigms utilizing systematic evidence to improve practice and further skills in assessment of learning outcomes. Emphasizes linking research and practice, making instructional decisions based on systematically collected data. Prerequisite(s): Admission into elementary education graduate program; capstone course for degree must be taken last in programmatic sequence. Hours of Lecture or Seminar per week: 3

Learning Outcomes

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.
10. Use technology to assist in locating, using, conducting research, and analyzing data.

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.

<i>Learning Outcomes</i>	<i>NBPTS Propositions</i>	<i>NETS Standards</i>
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

Nature of the Course

This course is structured to utilize multiple instruction formats. We will engage in face-to-face class sessions, as well as scheduled online discussions and activities. Face to face class sessions will include small/large group discussions and tasks, lecture, and student leading of discussions.

Required Texts

Mills, G. E. (2008). *Action research: A guide for the teacher researcher (4th ed.)*. Upper Saddle River, NJ: Pearson Merrill Prentice Hall.

Additional selected readings will be posted on Blackboard.

Assignments

Assignment descriptions follow. More detailed information will be provided in class. Only the Action Research Proposal (PBA) rubric is attached at the end of this syllabus.

Assignment	Points
Inquiry Comparison Chart	5
Action Research Journal	10
Action Research Proposal Developmental Pieces	20
Action Research Proposal (PBA)	21
Action Research Implementation, Report, and Sharing	24
Readings and Class Activities	20
	100

Readings and Class Activities (20 points)

Action research is just as much about utilizing academic research to guide your teaching, as it is about examining your own instructional practice and student learning for your own personal change. You must place yourself within the larger institution of which you are a part. This means that you must utilize the professional research literature to help you make those theory to practice connections- using what we know globally to act locally. Therefore to strengthen your professional development, it is expected that you will complete all assigned readings and assignments BEFORE class begins each week. You also must be “present” during each class session by actively engaging with the content and your peers.

Inquiry Comparison Chart (5 points)

During week one, we will begin exploring what constitutes teacher action research. You will look at several action research reports and complete a chart that identifies and summarizes each piece of the action research process. You will also respond to several questions utilizing your chart, and during week two, you will use your chart to compare action research with traditional academic research.

Action Research Journal (10 points)

While we study the different ways of systematically collecting evidence and its analysis, you will keep a running journal (online) that documents your notes and reflections. The journal will be completed in and out of class and will be submitted at the end of the semester.

Action Research Proposal Developmental Pieces (20 points ongoing)

- Part One: Rationale(reference to the general climate of accountability) and research question
- Part Two: Literature review
 - This is in two sections: section A is a synthesis of content research, section B is a synthesis of research related to a specific social studies strategy. *you will complete section B during the second half of the semester
- Part Three: Instructional Context and Planned Change
 - Describe your school, community, classroom and student population; and
 - Describe the planned instructional change
- Part Four: Data Collection and Student Assessment Plan
 - Lay out your specific plan for what data you will collect to answer your research question(s) and how you will collect it. This includes formative and summative

assessments designed to gather that data *this will need to be revised as necessary to fit any changes

- **Part Five: Data Analysis Plan**
 - Describe how you plan to analyze your data *this will need to be revised as necessary to reflect your actual data analysis process

Action Research Proposal (21 points) PBA

You will combine all proposal pieces completed throughout the semester into one document for final submission. You will also include section B of the literature review.

Action Research Implementation, Report, and Sharing (24 points; due at the END of the semester)

During the second half of the semester, you will implement your Action Research using your proposal as a guide. At the end of the semester, you will write up an action research report (filling in any gaps from your proposal and revising as necessary), create a handout, and present your research to your peers in an inquiry colloquium. Guidelines for presentations will be provided in class.

In your research report include all above sections (revised as necessary) plus parts 6 and 7.

- **Part Six: Findings**
 - Report your findings from your analysis
- **Part Seven: Implications and Discussion**
 - What did you learn about student learning? What did you learn about yourself as a teacher? How do your findings fit into the existing literature that you reviewed? How will your findings impact your future instruction?

Grading Scale and Policies

A=93-100; A-=90-92; B+=87-89; B=80-86; C=70-79; F=below 70

Remember: A course grade less than B requires that you retake the course.

Note:

Assignments earning less than a passing grade may be rewritten and resubmitted so that the assignment is satisfactorily completed. In fact, because learning is the goal, I may *require* you to redo an assignment that is far below expectations.

All written papers must be double-spaced, with 1" margins, and in 12-point font (Times New Roman, Calibri, or Arial). APA format is expected. If you do not have a 6th Edition APA manual, the OWL at Purdue is an excellent resource <http://owl.english.purdue.edu/owl/resource/560/01/>.

University, College, and Elementary Program Policies

The College of Education and Human Development strives to represent a set of core values that drive the work of faculty and students. These values of collaboration, ethical leadership, innovation, research-based practice, and social justice are further described on the CEHD website <http://cehd.gmu.edu/values/>.

Students must follow the university policy stating that all sound emitting devices shall be turned off during class unless otherwise authorized by the instructor. One cell phone will remain on in class that is registered with the Mason Alert System. Visit <https://alert.gmu.edu>, to find out more about Mason's alert system for GMU emergencies.

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

Students must adhere to the guidelines of the George Mason University Honor Code [See <http://academicintegrity.gmu.edu/honorcode/>].

Honor Code. To promote a stronger sense of mutual responsibility, respect, trust, and fairness among all members of the University community and with the desire for greater academic and personal integrity, GMU has set forth a code of honor that includes policies on cheating, attempted cheating, lack of class participation in group work, plagiarism, lying and stealing (see link above). The Elementary Program abides by these policies and takes them seriously.

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 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/>].

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/>].

Course Calendar

EDCI 559 Research and Assessment in Elementary Education

Date	Topic/Guiding questions	Reading/Assignment Due
Jan. 25	Introducing teacher research <ul style="list-style-type: none"> • The age of accountability • Data driven decision making • Inquiry as a part of teaching, not apart from it (surfacing potential benefits and challenges) • What do you wonder about? (journal) Consuming academic research <ul style="list-style-type: none"> • Qualitative versus quantitative • Evaluating key pieces of academic reports • How does academic research differ from action research? 	Read action research briefs at the beginning of each Mills chapter Mills Chapter 1 Jones Chapter 2
Feb. 1	Introducing <i>your</i> teacher research <ul style="list-style-type: none"> • Connecting academic and action research • How to search for research articles • Writing your introduction and research question • Dr. Swalwell to visit 	Mills Chapter 3 Part 1: Rationale and Research Question Due Part 3: Context and Preliminary Planned Change Due (turn in by Sunday Feb. 12 midnight online) In class: find and synthesize three articles related to the content area where you will be integrating social studies
Feb. 8	Data Collection <ul style="list-style-type: none"> • Data collection methods • Role of assessment as data • Matching methods to questions (chart) • Being rigorous 	Mills Chapter 4 Mills Chapter 5 Dana and Yendol-Hoppey (pdf) Part 2: Literature Review- section A Due (turn in by Sunday Feb. 19 midnight online)
Feb. 15	Data Analysis <ul style="list-style-type: none"> • Data analysis methods • Matching analysis to data and questions • Surfacing bias, being open 	Mills Chapter 6 Dana and Yendol-Hoppey excerpt Data Collection Trials Due (part of Journal)- one qualitative or one quantitative method <ul style="list-style-type: none"> • Add Data Analysis Trials in class (part of Journal) Part 4: Data Collection Plan Due (turn in by Sunday Feb. 26 midnight online)

<p>Feb. 22</p>	<p>Evaluating the Quality of Action Research</p> <ul style="list-style-type: none"> • Is all action research “good”? • 790 Seminar (5-6pm) 	<p>Mills Chapter 9 Dana and Yendol-Hoppey (pdf)</p> <p>Part 5: Data Analysis Plan Due (turn in by Sunday Mar. 4 midnight online)</p> <p>Submit Journal</p>
<p>Mar. 21 (7-9pm)</p>	<p>Implementing your Proposal</p> <ul style="list-style-type: none"> • Timeline/Action Steps 	<p>FINAL RESEARCH PROPOSAL (PBA) DUE ONLINE (including part B of lit review) (Complete Action Research b/t now and April 25)</p>
<p>Apr. 25 (7-9pm)</p>	<p>Analyzing and writing up findings</p>	<p>Mills Chapter 8 Appendix A Appendix C</p>
<p>May 2</p>	<p>Shared Inquiry Showcase</p>	<p>FINAL RESEARCH REPORT AND HANDOUT DUE MUST BE PREPARED TO PRESENT</p>

Note: Calendar is tentative and may be modified in line with course needs.

(pdf) readings are located on Blackboard

Action Research Proposal (PBA) Rubric

Levels/Criteria	1	2	3
Introduction: Describes the problem. Clear research question stated. Significance of problem is addressed.	The problem is not adequately described. It does not lead the reader to the research question. The research question is unclear. It is not measureable. The significance of the problem is unfocused and rambles. It is not clear why this is an important topic to study.	The problem is adequately described. The description partially leads the reader to the research question. The research question is vague. It is measureable. The significance of the problem is adequately addressed, but it is not clear as to why this is important.	The problem is described in details. The description fully leads the reader to the research question. The research question is clear. It is measureable. The significance of the problem is addressed fully. It is clear why this is an important problem to study.
Literature Review: Research studies are used. Analysis of literature is evidence. Synthesis of literature is evident.	Less than six research studies are used. The articles are not from respectable journals. The studies are not appropriate for the topic. The analysis of the literature is inadequate. It does not connect to the problem statement and research question. There is an inadequate synthesis of the literature. The studies are treated separately and not tied together. Student is unable to connect studies to the importance of the topic.	Six to nine research studies are used. At least one of them is from a respectable journal. The studies are somewhat appropriate for the topic. The analysis of the literature is adequate. It connects somewhat to the problem statement and research question, but leaves the reader wanting to know more. There is an adequate synthesis of the literature. Student primarily relies on restating the research studies to support the topic, but is able to include own thoughts regarding the studies.	At least ten research studies are used to support the literature review. These are from respectable journals. The studies are appropriate for the topic. Analysis of the literature is well-developed. It connects directly to the problem statement and the research question. There is a good synthesis of the literature. This goes beyond restating what is in the articles. Student is able to tie the studies together and connect this back to the importance of the topic.
Context and Intervention Provided: Setting Described. Population identified. Intervention.	Setting is not included or inadequately described. It is not clear where the research will be conducted. Population is not included or inadequately described. It is not clear who will be participating in the research study. There is no intervention or implementation explained or the intervention does not align with the research question.	The setting is adequately described. Most information is included, but not all. The population is adequately described. Most information is included, but not all. Intervention is adequately described, but either the description of the intervention or the implementation is confusing.	The setting is fully described. It includes, size of school, location, grade level, subject taught, etc. All pertinent information is included. The population is fully described. It includes number of students, gender and ethnic breakdown, grade levels, academic abilities, etc. Information relevant to the research is included. Intervention is fully described. It is clear what the intervention is and how it will be implemented. Intervention is realistic.

Levels/Criteria	1	2	3
<p>Research Design Design of study matches goals. Formative and Summative Assessments included. Data sources appropriate.</p>	<p>None or one of the criteria is adequate. The research is not ethical. Either formative or summative assessments are included, but not both. Copies are not included and they are not well described. The majority of the data sources are not appropriate for the research question. Data collected is not ethical.</p>	<p>Two of the three stated criteria are adequate. Formative and summative assessments are included in the design. Copies are not included and they are not well described. Most, but not all, of the data sources are appropriate.</p>	<p>The methodology chosen (quantitative, qualitative, mixed methods) is appropriate for the research question. There is adequate time allowed for data collection. The treatment is reasonable and ethical. There is a mixture of formative and summative assessments included in the design. They are well-described or a copy is included. All data sources are appropriate for the research question. The information collected will help answer the question.</p>
<p>Analysis of Data: Appropriate analysis for data collected. Implications from data proposed.</p>	<p>The analysis is inappropriate or not well-defined. Implications from the data are inadequately discussed. It is not clear the student is able to interpret the findings. The implications are not tied back to the results.</p>	<p>The majority of the analysis is appropriate. However, it is not clear how other parts will be analyzed. Implications from the data are adequately discussed. It is clear the student is able to interpret the findings. However, the implications are not tied back to the results.</p>	<p>The entire analysis of the data is appropriate. The information gathered will address the research question. Implications from the data are well-developed and fully discussed. The implications are connected back to the results of the data analysis.</p>
<p>References: Full citations for all sources mentioned. Use of APA style for formatting. All listed references are used in the paper. Most references are from scholarly sources.</p>	<p>Two or more sources are not cited correctly. There are four or more APA errors. Two or more references are not cited. The majority of the references are not from scholarly sources.</p>	<p>Only one source is not cited correctly. There are one to three APA errors. One reference is not cited in the proposal The majority of the references are from scholarly sources.</p>	<p>All sources are completely and correctly cited. All articles cited are referenced in the proposal and all references contain complete citations. All citations and references follow APA style. There are no errors. All references listed are cited in the proposal. All references are from scholarly sources (journal articles, text books, etc.) They are not just from websites.</p>

Levels/Criteria	1	2	3
<p>Overall Style: Clear, concise writing. Grammar and punctuation. Multiple levels of headings used to organize ideas.</p>	<p>The majority of the reading is vague and unclear. The reader has difficulty seeing the connections between the various sections. There are four or more grammar and punctuation errors. There is no evidence of multiple levels of headings or these are used inappropriately in the majority of instances.</p>	<p>The majority of the writing is clear and concise. There are one to three grammar and punctuation errors. There is evidence of multiple levels of headings. These are used appropriately in the majority of instances.</p>	<p>The writing is very clear and concise. The reader can understand what the problem is and how the research will address it. There are no grammar and punctuation errors. There is evidence of multiple levels of headings. These are used appropriately in all instances.</p>