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

EDCI 559 Research and Assessment in Elementary Education, 3 credits

Summer 2013
May 20, 2013 - Jun 21, 2013 (7:00pm - 10:05pm M, W, F)
Hanover Hall L002

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Office Hours: By appointment; Skype appointments can also be made

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.

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.

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

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 led discussions and activities.

Required Texts

Mills, G. E. (2013). *Action research: A guide for the teacher researcher (5th ed.).* Upper Saddle River, NJ: Pearson Merrill Prentice Hall.

Registration to the FCPS Teacher Research Conference, \$10

Additional selected readings will be posted on Blackboard.

Assignments

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

Assignment	Points
Readings and Activities (In-class and Online)	30
Action Research Report (PBA)	21
Action Research Reflection	4
Quantitative Data Collection Trial	15
Qualitative Data Collection Trial	15
Action Research Presentation	15
Total	100

Readings and Activities (In-class and Online)

It is expected that you will complete all assigned readings and tasks each week. You also must be "present" during each class session by actively engaging with the content and your peers. Online discussions and activities must also clearly demonstrate your thoughtful completion of the readings and tasks. You are expected to attend class and complete all assigned readings and tasks BEFORE class begins for that day. In the event of an emergency, your instructor must be notified of your absence in advance of class.

Action Research Report

This is the major assignment for this class and is the Performance Based Assessment (PBA) for the course. *The Action Research Report will detail the process and findings from the action research that you conducted during your Spring 2013 internship placement.* If you did not have a Spring 2013 internship placement, you will write a proposal for research and change all of the sections below to future tense (I will...).

The final written report (or proposal) will include the five major sections below. These sections will be submitted throughout the semester for formative feedback from peers and your instructor. These drafts MUST be submitted by their syllabus due dates. Not doing so will affect your Readings and Activities (In-class and Online) grade. Points will also be earned for quality of writing and use of APA style. See attached rubric. Please see *TRA Report-Proposal Template* on Blackboard for more details about the sections below and for differences between the report and proposal sections.

- Part One: Rationale and Research Question
- Part Two: Literature Review
- Part Three: Instructional Context and Change
 - o Describe your school, community, classroom and student population; and
 - Describe the instructional change
- Part Four: Data Collection and Student Assessment
 - Describe how you collected data to answer your research question(s). This includes formative and summative assessments designed to gather that data.
- Part Five: Data Analysis

- Part 5a: Describe how you analyzed your data
- Part 5b: Identify and describe limitations to your study (use what you learned both from your experience and from what you learned in the course)
- o Part 5c: Describe your findings and their implications for teaching and learning

*Note: If you conducted it, you will be using your question and data from your spring 2013 action research.

Action Research Reflection

In this one to two- page written reflection, you will think over your process of teacher research from start (January seminars) to finish (summer written report). Where have you grown as a teacher researcher? Where do you feel uncertain? How did your actions affect your students' opportunities for learning? How did you create more equitable conditions for student success?

Quantitative Data Collection Trial

Groups of students will develop a short survey instrument with 10-12 questions, collect data from at least 15 people each, analyze the data using descriptive statistics, and write up a short report. This does not have to be related to the focus of your Action Research Report. Typically students do better when the topic can be asked of non-school personnel- for example, you may ask parents about their views of schools, ask college students to identify top issues in education, etc. Your survey instrument must be workshopped with and approved by your critical friends.

Qualitative Data Collection Trial

Individually, 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 your Action Research Report. Your data collection protocol must be workshopped with and approved by your critical friends.

Action Research Presentation

You will present your Action Research. This presentation will be based on your written report (see above). You will participate with other sections of EDCI 559 in a roundtable session. You will prepare a one-page handout for distribution to your audience. You may already have this prepared from the spring and if so, you may use it, updated to reflect any new analysis or findings.

Please Note: Your assignments are only accepted via Blackboard (except the PBA- that is uploaded to TaskStream).

You must name your file in the following way:

Yourlastname_assignment

For example, for the quantitative assignment, mine would be: king_quant

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.

Late work will NOT be accepted without prior approval by your instructor. **Any assignment submitted past the syllabus deadline without prior approval will earn 0 points.** Late submission of your Action Research Report sections will affect your Readings and Activities (In-class and Online) grade.

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/.

TaskStream Requirements

Every student registered for any Elementary Education course with a required performance-based assessment (designated as such in the syllabus) is required to submit this assessment (EDCI 559: *Action Research Proposal*) to TaskStream (regardless of whether a course is an elective, a onetime course or part of an undergraduate minor). Evaluation of your performance-based assessment will also be provided using TaskStream. Failure to submit the assessment to TaskStream will result in a the course instructor reporting the course grade as Incomplete(IN). Unless this grade is changed upon completion of the required TaskStream submission, the IN will convert to an F nine weeks into the following semester.

GMU Policies and Resources for Students

- a) Students must adhere to the guidelines of the George Mason University Honor Code [See http://oai.gmu.edu/honor-code/].
- b) Students must follow the university policy for Responsible Use of Computing [See http://universitypolicy.gmu.edu/1301gen.html].
- c) 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.
- d) 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/].
- e) 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/].

- f) Students must follow the university policy stating that all sound emitting devices shall be turned off during class unless otherwise authorized by the instructor.
- g) 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/].

Professional Dispositions

Students are expected to exhibit professional behaviors and dispositions at all times.

Core Values Commitment

The College of Education & Human Development is committed to collaboration, ethical leadership, innovation, research-based practice, and social justice. Students are expected to adhere to these principles. http://cehd.gmu.edu/values/

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

EDCI 559 Summer 13 Course Calendar

Week	Date	Readings	Topics and Activities	Assignments Due
	M 5/20	Mills Ch. 1	 Introducing Teacher Research Inquiry as a part of teaching, not apart from it (surfacing potential benefits and challenges) How does academic research differ from action research? Critical Friends Groups 	
1	W 5/22	Mills Ch. 3	 Crafting and reflecting on your teacher research Wonderings and questions Writing your introduction and research question The 5 Whys Reviewing the Literature Connecting academic and action research 	To be completed by Wednesday 5/22 before class Online work: Searching for articles, APA
	F 5/24		NO CLASS- Memorial Day Observance	
	M 5/27		NO CLASS- Memorial Day Observance	Due Tuesday 5/28 Part 1: Rationale and Research Question
2	W 5/29		FCPS Teacher Research Conference 4:30-8:00pm Johnson Center	Due Wednesday 5/29 Lit review chart: 5 research articles related to your topic
	F 5/31 online	Mills Ch. 2	 Debriefing the Conference Designing your study Introduction: Types of Research Designs Developing the action plan Ethics in Action Research 	Due Friday 5/31 Lit review chart: 5 more research articles related to your topic plus a bulleted summary of themes Due by Sunday 6/2 Online work: Inquiry comparison chart: Choose 3 action research briefs from the beginning of each Mills chapter

3	M 6/3	Mills Ch. 4, 5 (Qual)	 Qualitative Data Collection and Analysis Matching methods to questions (chart) Bring your data from the spring Surfacing bias, being open 	Due Monday 6/3 Part 3: Context and Change
	W 6/5	Mills Ch.4, 5 (Quant) App. B	 Quantitative Data Collection and Analysis Matching methods to questions (chart) Bring your data from the spring 	
	F 6/7 online	Mills Ch. 5, 6	Organizing and Displaying Findings • Summarizing data	Due Friday 6/7 Part 2: Literature Review Draft Due by Sunday 6/9 Online work
	M 6/10	Mills Ch.7	 Drawing Implications from Findings Parts a, b, c of Data Analysis section 	
	W 6/12	Mills App. C	Presentations of Qualitative and Quantitative Trials	Due Wednesday 6/12 Qual and Quant Trials
	F 6/14 online	Mills Ch. 8, 9	Evaluating the Quality of Action Research Is all action research "good" research?	Due Friday 6/14 Part 4: Data Collection Part 5: Data Analysis Due by Sunday 6/16 Online work- Evaluating action research reports
	M 6/17		Workshopping your presentation and handouts	Draft handout
5	W 6/19	Action Research Symposium		Handout and presentation
	F 6/21	NO CLASS		Due Friday 6/21 midnight Action Research Report or Proposal (PBA)

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

Action Research Proposal (PBA) Rubric

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

Levels/Criteria	3	2	1
	research is included.		intervention does not align with the
	Intervention is fully described. It is clear		research question.
	what the intervention is and how it will be		
	implemented. Intervention is realistic.		
Research Design	The methodology chosen (quantitative,	Two of the three stated criteria are	None or one of the criteria is adequate.
Design of study	qualitative, mixed methods) is appropriate	adequate.	The research is not ethical.
matches goals.	for the research question. There is	Formative and summative assessments	Either formative or summative
Formative and	adequate time allowed for data collection.	are included in the design. Copies are not	assessments are included, but not both.
Summative	The treatment is reasonable and ethical.	included and they are not well described.	Copies are not included and they are not
Assessments	There is a mixture of formative and	Most, but not all, of the data sources are	well described.
included.	summative assessments included in the	appropriate.	The majority of the data sources are not
Data sources	design. They are well-described or a copy		appropriate for the research question.
appropriate.	is included.		Data collected is not ethical.
	All data sources are appropriate for the		
	research question. The information		
	collected will help answer the question.		
Analysis of Data:	The entire analysis of the data is	The majority of the analysis is appropriate.	The analysis is inappropriate or not well-
Appropriate	appropriate. The information gathered will	However, it is not clear how other parts	defined.
analysis for data	address the research question.	will be analyzed.	Implications from the data are
collected.	Implications from the data are well-	Implications from the data are adequately	inadequately discussed. It is not clear the
Implications from	developed and fully discussed. The	discussed. It is clear the student is able to	student is able to interpret the findings.
data proposed.	implications are connected back to the	interpret the findings. However, the	The implications are not tied back to the
	results of the data analysis.	implications are not tied back to the	results.
		results.	

Levels/Criteria	3	2	1
References:	All sources are completely and correctly	Only one source is not cited correctly.	Two or more sources are not cited
Full citations for all	cited. All articles cited are referenced in	There are one to three APA errors.	correctly.
sources	the proposal and all references contain	One reference is not cited in the proposal	There are four or more APA errors.
mentioned.	complete citations.	The majority of the references are from	Two or more references are not cited.
Use of APA style	All citations and references follow APA	scholarly sources.	The majority of the references are not
for formatting.	style. There are no errors.		from scholarly sources.
All listed	All references listed are cited in the		
references are	proposal.		
used in the paper.	All references are from scholarly sources		
Most references	(journal articles, text books, etc.) They are		
are from scholarly	not just from websites.		
sources.			
Overall Style:	The writing is very clear and concise. The	The majority of the writing is clear and	The majority of the reading is vague and
Clear, concise	reader can understand what the problem	concise.	unclear. The reader has difficulty seeing
writing.	is and how the research will address it.	There are one to three grammar and	the connections between the various
Grammar and	There are no grammar and punctuation	punctuation errors.	sections.
punctuation.	errors.	There is evidence of multiple levels of	There are four or more grammar and
Multiple levels of	There is evidence of multiple levels of	headings. These are used appropriately in	punctuation errors.
headings used to	headings. These are used appropriately in	the majority of instances.	There is no evidence of multiple levels of
organize ideas.	all instances.		headings or these are used
			inappropriately in the majority of
			instances.