

George Mason University
College of Education and Human Development Graduate School of Education
Program: Elementary Education - Licensure

EDCI 559 Research and Assessment in Education

Section A01 3 credits

Summer 2014

May 19, 2013 – June 25, 2013 (4-6:40 M, W, F)

Thompson 2022

Professor: Dr. Lois Groth
Phone: 703-993-2139
Office Hours: By appointment

Office: Thompson 1801
Cell: 703-927-2128
Email: lgroth@gmu.edu

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.

Nature of Course Delivery

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.

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

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. The *Action Research Report (PBA)* rubric is attached at the end of this syllabus.

<i>Assignment</i>	<i>Points</i>
Readings, Online, and In-Class Activities	30
Final Action Research Report (PBA)	21
Action Research Reflection	4
Quantitative Data Collection/Report/Reflect	15
Qualitative Data Collection/Report/Reflect	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 2014 internship placement.* If you did not have a Spring 2014 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
 - 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)
 - 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 2014 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: groth_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 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
1	M 5/19	Mills Ch. 1	<i>Debriefing the Conference</i> <i>Introducing Teacher Research</i> <ul style="list-style-type: none"> 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 	To be completed by Wednesday 5/21 before class Online work: Searching for articles, APA
	W 5/21	Mills Ch. 3	<i>Crafting and reflecting on your teacher research</i> <ul style="list-style-type: none"> Wonderings and questions Writing your introduction and research question The 5 Whys <i>Reviewing the Literature</i> <ul style="list-style-type: none"> Connecting academic and action research 	
	F 5/23		NO CLASS- Memorial Day Observance	
2	M 5/26		NO CLASS- Memorial Day Observance	Due Tuesday 5/27 Part 1: Rationale and Research Question
	W 5/28		<i>Designing your study</i> <ul style="list-style-type: none"> Introduction: Types of Research Designs Developing the action plan 	Due Wednesday 5/28 Lit review chart: 5 research articles related to your topic
	F 5/30 online	Mills Ch. 2	Ethics in Action Research	Due Friday 5/30 Lit review chart: 5 more research articles related to your topic plus a bulleted summary of themes Due by Sunday 6/1 Online work: Inquiry comparison chart: Choose 3 action research briefs from the beginning of each Mills chapter

3	M 6/2	Mills Ch. 4, 5 (Qual)	<i>Qualitative Data Collection and Analysis</i> <ul style="list-style-type: none"> • Matching methods to questions (chart) • Bring your data from the spring • Surfacing bias, being open 	Due Monday 6/2 Part 3: Context and Change
	W 6/4	Mills Ch.4, 5 (Quant) App. B	<i>Quantitative Data Collection and Analysis</i> <ul style="list-style-type: none"> • Matching methods to questions (chart) • Bring your data from the spring 	
	F 6/6 online	Mills Ch. 5, 6	<i>Organizing and Displaying Findings</i> <ul style="list-style-type: none"> • Summarizing data 	Due Friday 6/6 Part 2: Literature Review Draft Due by Sunday 6/8 Online work
4	M 6/9	Mills Ch.7	<i>Drawing Implications from Findings</i> <ul style="list-style-type: none"> • Parts a, b, c of Data Analysis section 	
	W 6/11	Mills App. C	Analyzing data of Qualitative and Quantitative Trials	Due Wednesday 6/11 Qual and Quant Trials
	F 6/13 online	Mills Ch. 8, 9	<i>Evaluating the Quality of Action Research</i> <ul style="list-style-type: none"> • Is all action research “good” research? 	Due Friday 6/13 Part 4: Data Collection Part 5: Data Analysis Due by Sunday 6/15 Online work- Evaluating action research reports
5	M 6/16		In class presentations of Qualitative and Quantitative Trials	Draft handout
	W 6/19	<i>Workshopping your presentation and handouts</i>		Handout and presentation
	F 6/20	NO CLASS in exchange for attending FCPS Research Conference		

6	M 6/23	<i>Action Research Symposium</i>	Handout due
	W 6/25	Submit Action Research Report – No class	Due Wednesday 6/25 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: Describes the problem. Clear research question stated. Significance of problem is addressed.	The problem is described in detail. 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.	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 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.
Literature Review: Research studies are used. Analysis of literature is evidence. Synthesis of literature is evident.	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.	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.	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.
Context and Intervention Provided:	The setting is fully described. It includes, size of school, location, grade level, subject taught, etc. All pertinent	The setting is adequately described. Most information is included, but not all. The population is adequately described.	Setting is not included or inadequately described. It is not clear where the research will be conducted.

Levels/Criteria	3	2	1
<p>Setting Described. Population identified. Intervention.</p>	<p>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.</p>	<p>Most information is included, but not all. Intervention is adequately described, but either the description of the intervention or the implementation is confusing.</p>	<p>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.</p>
<p>Research Design Design of study matches goals. Formative and Summative Assessments included. Data sources 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>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>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>Analysis of Data: Appropriate analysis for data collected. Implications from data proposed.</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>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 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>

Levels/Criteria	3	2	1
<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>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>	<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>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>Overall Style: Clear, concise writing. Grammar and punctuation. Multiple levels of headings used to organize ideas.</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>	<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 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>