GEORGE MASON UNIVERSITY
COLLEGE OF EDUCATION AND HUMAN DEVELOPMENT
GRADUATE SCHOOL OF EDUCATION

Course
EDCI 559: Research and Assessment in Elementary Education, Section A03, (3 credits)
Summer 2015, May 18th-June 20th
Monday, Wednesday, and Friday 4:30-7:30; East 201

Instructor
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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.

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

B. Outcomes and Standards

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

Required Texts

Mills, G. E. (2014). *Action research: A guide for the teacher researcher* (5th ed.). Boston, MA: Pearson.

Additional selected readings will be posted to Blackboard.

TaskStream Requirement

Every student registered for a course with a required performance-based assessment is required to submit this assessment to TaskStream (regardless of whether a course is an elective, a onetime course or part of an undergraduate minor). Evaluation of the performance-based assessment by the course instructor will also be completed in TaskStream. Failure to submit the assessment to TaskStream will result in the course instructor reporting the course grade as Incomplete (IN). Unless the IN grade is changed upon completion of the required TaskStream submission, the IN will convert to an F nine weeks into the following semester.

Assignments

Assignment	Points
1. Readings and Activities (in-class and online) [Outcomes 1, 2, 3, 4, 5, 6, 7, 8, 9, 10]	30
2. Action Research Report (PBA) [Outcomes 1, 2, 3, 4, 5, 6, 7, 8, 9, 10]	21
3. Action Research Reflection [Outcomes 1, 2]	10
4. Quantitative Data Analysis [Outcomes 4, 5, 6]	12
5. Qualitative Data Analysis [Outcomes 4, 5, 6]	12
6. Action Research Presentation—TaskStream [Outcomes 1, 2, 3, 7]	15
Total	**100**

1. Reading and Activities (In-Class and Online) (30 points)
I expect 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. In the event of an emergency, I must be notified of your absence in advance of class.

2. Action Research Report (21 points) (Due: 6/19/15 by 11:59 PM) – TaskStream Requirement
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 <u>proposal</u> for research changing all 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 *Teacher Research Report Template* on Blackboard for more details about the sections below and for differences between the report and proposal sections.
- <u>Part One:</u> Rationale and Research Question
- <u>Part Two:</u> Literature Review
- <u>Part Three:</u> Instructional Context and Change
    - Describe your school, community, classroom and student population; and
    - Describe the instructional change
- <u>Part Four:</u> 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.
- <u>Part Five:</u> 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

Must be submitted via Taskstream

Note: If you conducted it, you will be using your question and data from your spring 2014 action research.

3. Action Research Reflection (10 points) (due 6/19/15)
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). Some possible questions you could address are: 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? How will you continue to pursue research as you move into your role as a classroom teacher?

4. Quantitative Data Analysis (12 points)
Groups of students will analyze data we provide using descriptive statistics and a t-test.

5. Qualitative Data Analysis (12 points)
Groups of students will analyze a set of qualitative data, which we provide for you.

6. Action Research Presentation (15 points) (Sharing Symposium will be held 6/17/15)
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.

Course Policies

All assignments must be written in Times New Roman 12 point font, double-spaced, and follow APA (6th edition) formatting guidelines (see http://owl.english.purdue.edu/owl/resource/560/01/ for more information). **Assignments should be submitted electronically via email and are due by class time on the date indicated in an appropriate format (i.e., Word document).** Assignments turned in late or in an inappropriate format will be eligible for only 50% of the available points. If there is an emergency, contact me as soon as possible. **All assignments should be submitted with the following naming convention: student's last name and the title of the assignment**. For example: Parsons_LitReview

Absentee Policy: I understand that we all get sick and busy. However, we our class meets during a compressed summer schedule, and missing one class is equivalent to missing about half a week's worth of class. If you are absent more than once, I will deduct points from your class participation grade as a result. You cannot contribute to class if you do not attend.

Technology Policy: When you are using cell phones, laptops, etc., please be respectful of your peers and your instructor and do not engage in activities that are unrelated to class. Such disruptions show a lack of professionalism and may affect your participation grade.

Grading Scale
94-100 = A   90-93 = A-   88-89 = B+   81-87 = B   70-80 = C   Below 70 = F

Important Note: Please bring with you to each class meeting your data and most current drafts of your research report. During some class meetings, you will have time to collaborate with peers, meet with the instructor, and work on the report. Therefore, it is important to have these data and documents with you.

Course Schedule

Date	Readings	Topics and Activities	Deliverables & Due Dates
M 5/18		*Introductions and Syllabus* *Review Teacher Research* *Critical Friends Groups*	
W 5/20	Mills ch. 1, 3	*Rationale and Research Question* *Reviewing the Literature*	**Due Wednesday 5/20:** APA Tutorial
F 5/22		**Online** *Literature review resources* *Work on literature review charts*	**Due Friday 5/22:** Part 1: Rationale and Research Question
M 5/25		**No class in honor of Memorial Day (University closed)**	
W 5/27		**FCPS Teacher Research Conference**	**Due Wed 5/27:** Lit review chart: 5 research articles related to your topic
F 5/29	Mills ch. 2	**Online** *Debriefing the Teacher Researcher Conference* *Ethics in Action Research*	**Due Sat 5/30:** Lit review chart: 5 more research articles related to your topic plus a bulleted summary of themes
M 6/1	Mills ch. 4, 6 (Qual) App. C	*Designing your study* *Qualitative Data Collection and Analysis* • Matching methods to questions (chart) • Bring your data from the spring • Surfacing bias, being open	**Due Monday 6/1:** Part 3: Context and Change
W 6/3	Mills ch. 4, 6 (Quant) App. B	*Quantitative Data Collection and Analysis* • Matching methods to questions (chart) • Bring your data from the spring	
F 6/5	Mills ch. 5	**No class meeting**	**Due Friday 6/5:** Part 2: Literature Review Draft
M 6/8		*Drawing Implications from Findings* • Parts a, b, c of Data Analysis section	
W 6/10	Mills, ch 9 and App A	*Ensuring Trustworthiness* • Validity, Reliability, Generalizability *Evaluating the Quality of Action Research* • Is all action research "good" research?	
F 6/12	Mills ch. 8	**No class meeting – work on Parts 4 and 5**	**Due Friday 6/12:** Part 4: Data Collection Part 5: Data Analysis **Due Sunday 6/14:**

Date	Readings	Topics and Activities	Deliverables & Due Dates
			Online work - Evaluating action research reports
M 6/15		*Workshop your presentation and handouts*	**Due Monday 6/15:** Draft handout Work on presentation and handout
W 6/17		*Sharing Symposium* Location TBD	**Roundtable presentations of PBAs**
F 6/19		**No class meeting – finalize PBA**	**Final PBA and action research reflection due by 11:59 pm**

*Instructor reserves the right to adjust the syllabus

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 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.	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: Setting Described. Population identified. Intervention.	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	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	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

Levels/Criteria	3	2	1
	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.	description of the intervention or the implementation is confusing.	study. There is no intervention or implementation explained or the intervention does not align with the research question.
Research Design Design of study matches goals. Formative and Summative Assessments included. Data sources appropriate.	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.	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.	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.
Analysis of Data: Appropriate analysis for data collected. Implications from data proposed.	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.	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.	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.

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