

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

EDCI 559: Research and Assessment in Elementary Education

Summer 2012

Monday/Wednesday/Friday 7:00 pm – 10:05 pm, Innovation Hall 316

May 21, 2012 – June 22, 2012

Instructor: Dr. Katy Swalwell

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Office Hours: Tuesdays 1-3pm and by appointment; Skype appointments can also be made

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
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

Required:

Jones, W. P., & Kottler, J. A. (2008). *Understanding Research: Becoming a Competent and Critical Consumer*. New York, NY: Pearson.

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

Recommended:

American Psychological Association. (2009). *Publication manual of the American Psychological Association (6th ed.)*. Washington, DC: Author.

Course Requirements

A. Assignments

Assignment	Points
Action Research Proposal Components 1. Rationale and research question (Due: 5/30) 2. Literature review (Due: 6/4) 3. Context and Intervention (Due: 6/8) 4. Data Collection Plan/Student Assessment (Due 6/13) 5. Data Analysis Plan (Due 6/15)	30
Final Action Research Proposal (PBA) (Due: 6/22)	25
Action Research Proposal Presentation (6/20)	6
Quantitative Data Collection/Report/Reflect (Survey Due for approval 6/1; Report Due 6/10)	12
Qualitative Data Collection/Report/Reflect (Due 6/17)	12
Chapter Discussion/Class Participation	15
Total	100

Action Research Proposal (25 points) (Due: 6/21)

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. See attached rubric.

Action Research Proposal Presentation (6 points) (6/20; Note time: 6:45-9:30 pm)

The presentation will be based on the written proposal. We will participate with all other sections of EDCI 559 in a Gallery Walk/Poster session. **Students will prepare a one-page summary for distribution to peers.** Students are encouraged to prepare a poster for this gallery walk although other options exist.

Components of Action Research Proposal (30 points)

- Part One: Rationale and research question (6 points)
- Part Two: Literature review (6 points) (in preparation, an analysis of three research articles will be sent for feedback on Sunday 5/27)
- Part Three: Context and Intervention – description of the school, community, classroom and student population, and description of instructional intervention (6 points);

- Part Four: Data Collection and Student Assessment Plan: specific plan on the data you will collect to answer your research question(s), and formative and summative student assessments designed to gather those data (6 points)
- Part Five: Data Analysis Plan – describe how you would you analyze the data, if you collected them (6 points)

Class participation and leadership of chapter discussion (15 points)

Students, in pairs or small groups, will devise an active-learning activity to engage class members in a discussion of the types of research chapters. Chapters will be determined at the start of the course. Students are expected to attend class and participate in small and large group discussions and submit written work on time. Points will be deducted for not doing so, unless previous arrangements have been made with Lynne. 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, and other learning activities. Readings must be completed before class and drafts of assignments must be provided to your learning team on time to facilitate effective feedback discussions. Attendance, punctuality, preparation and engagement are essential.

Quantitative Data Collection and Report (12 points) (DUE: Survey 6/1; Report Due 6/10)

Groups of students will develop a short survey instrument with 10-12 questions, collect data from at least 15 people, analyze the data using basic statistics, and write up a short report. This does not have to be related to the focus of your Action Research Proposal (see scoring).

Qualitative Data Collection and Report (12 points) (DUE: 6/17)

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 Proposal (see scoring); however, most individuals who tie them together feel they have a better handle on their topic. **Your proposal must be approved by Lynne.**

Please Note: Your assignments are only accepted electronically. You must name your file in the following way:

Yourlastname_assignment

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

B. Final Grading Scale

94-100 = A

90-93 = A-

88-89 = B+

81-87 = B

70-80 = 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, 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.

The College of Education & Human Development is committed to the following five values: collaboration, ethical leadership, innovation, research-based practice, and social justice. Students are expected to adhere to these principles. For more information about our core values, please reference <http://cehd.gmu.edu/values/>.

EDCI 559 Course Schedule Summer 2012

Date	Readings	Topics and Activities	Deliverables & Due Dates
5/21		Introduction to syllabus Overview of Action Research Organize Leading Discussion; Groups for supporting our Action Research (AR);	
5/23	Jones Chapter 1; Mills Chapter 1	Library Searching; Asking good research questions; narrowing a topic Watch this 5 minute video http://infoguides.gmu.edu/content.php?pid=7745&sid=327054	Email by 8 pm Tue 5/22: 3 research topics to search; explore possible rationale and research question(s).
5/25	Jones Chapter 2	ONLINE: Reviewing the Literature; Component 1: Rationale and Research Questions Intro to APA; Respond to email literature review activity	Component 1: Introduction, research question Due Tue 5/29 by 8 pm.
5/28		Memorial Day no Class; Please check email for dialogue!	Summary of 3 research articles related to your topic Email by 8 pm Sun 5/27
5/30	Mills 2, 3	Continue Component 2: Review and Synthesis of Literature Introduction: Types of Research Designs; Groups formed and begin planning for Quantitative Activity	
6/1	Jones: 3 and Appendix A	Component 3: Context and Intervention. Student Assessment as evidence. Designing Formative and Summative Assessments; Finish planning Quantitative Activity	Draft of Survey Due Sunday 6/1 by 8 pm; Component 2 – Literature Review Draft with at least 5 (out of ten required) scholarly references; Due 6/3 by 8pm
6/4	Mills Chapter 4; Jones 4	Component 4: Research Design, Methods, Quantitative Data Collection; Continue your efforts on Quantitative Activity	
6/6	Mills Chapter 5; 6	Stats, stats and some more stats	Component 3: Context, population, intervention. Due Thursday

			6/7 by 8 pm
6/8	Jones 5; Appendix B	Component 4: Data Collection, organization, and reading research reports; spend time analyzing quantitative data	Quantitative Data Collection Results and Interpretation Due Sunday 6/10 by 8 pm.
6/11	Mills Appendices B and C	Component 5: Introduction to Data Analysis Begin qualitative, and start dialogue on qualitative activity;	Component 4: Method and data sources and formative and summative assessment plans. Due Tuesday 6/12 by 8 pm
6/13	Mills Chapter 7; Jones Chapter 6	Qualitative Research; Activities to get us started; Activities on Analyzing Qualitative Data	
6/15	Jones Chapter 7 & Appendix C	ONLINE Displaying results, summarizing data; Ethics, Human Subjects	Component 5: Data analysis plan due Saturday 6/16 by 8 pm
6/18	Mills Chapters 8, 9	Individual present qualitative reports (5 minutes each) Action Research: Findings, Conclusions, Implications; how to write a report; summary of all things research	Qualitative Data Collection Results and Interpretation Due Sunday 6/17 by 8 pm.
6/20		Poster Fair and Gallery Walk – all 559 classes (SUB II Ballroom)	Action Research Proposal (PBA) due Thursday 6/21 midnight
6/22		Negotiable: Peer feedback; research considerations; debrief	

EDCI 559: Supplemental Materials
Rubric for Quantitative Project

Criteria	No Evidence (0 Points)	Developing (1 Point)	Accomplished (2 Points)
Survey	Survey consists of less than seven questions. The majority of the questions are unclear and/or do not relate to a common theme. Majority of the questions are not appropriate for quantitative analysis. Survey is completed by less than 12 people.	Survey consists of 7-9 questions. The majority of the questions is clear and relate to a common theme. Majority of the questions are appropriate for quantitative analysis. Survey is completed by 12-15 people.	Survey consists of 10-12 questions. Questions are clear and related to a theme. All questions are appropriate for quantitative analysis. Survey is completed by more than 15 people.
Demographics	One or no demographic questions are included. Demographic data are not appropriate for the survey topic.	At least two demographic questions are included. Demographic data are appropriate for the survey topic.	At least three demographic questions are included. These are used to help categorize people. Demographic data are appropriate for the survey topic.
Data Analysis	Data analysis is not appropriate for the survey. The analysis provided does not make sense. Data are not broken down by demographics.	Data analysis is appropriate for the survey. Means are reported. Data are not broken down by demographics.	Data analysis is appropriate for the survey. Data are broken down by demographics.
Results	Results are not presented appropriately. Data are presented inaccurately. Results are difficult to understand. Results are not tied back to the data. Results are not interpreted accurately.	The majority of the results are presented appropriately. Data are presented accurately, but not in also in table form. Results are fairly easy to understand. Some of the results are tied back to the data. Results are partially interpreted accurately.	Results are presented appropriately. Data are presented in tables according to APA style. Results are clear and easy to understand. Results are tied back to the data. Results are interpreted accurately.
Implications	Implications from the data are inadequately discussed. It is not clear the author is able to interpret the findings. The	Implications from the data are adequately discussed. It is clear the author is able to interpret the findings. However, the	Implications from the data are well-developed and fully discussed. The implications are connected back to the results of the data

	implications are not tied back to the results.	implications are not tied back to the results.	analysis.
Grammar/Format/Standards of Writing	Poor sentence structure, language usages, standards of grammar are under developed or refined. Sentences and paragraphs do not flow together. Punctuation is not consistently correct.	Most of the writing conventions are demonstrated. Some of the sentences and paragraphs are awkward. Some misused punctuation is evident.	Excellent grammar, punctuation, and writing conventions. Sentences and paragraphs flow well together. Logical arguments are made.

Score: ___/12

Rubric for Qualitative Project

Criteria	No Evidence (0 Points)	Developing (1 Point)	Accomplished (2 Points)
Protocol	The protocol used to collect data is not adequately described. A copy of the interview questions or procedures is not included. The protocol is not appropriate for the research question.	The protocol used to collect data is adequately described, but lacks details. A copy of the interview questions or procedures is not included. The protocol is appropriate for the research question.	The protocol used to collect data is adequately described in details. This could be the questions used for the interview or the procedures used for the observation. A copy of the interview questions or procedures is included. The protocol is appropriate for the research question.
Participants	The participants used for the study are not adequately described. Either they are not described or the description is very vague and it is difficult to get a sense of who they were.	The participants used for the study are adequately described. There is information about gender, age, and race, but the description lacks additional details.	The participants used for the study are adequately described. There is a rich description of the subjects and it is easy to form a picture of them.
Data Analysis	Data analysis is not appropriate for the protocol and/or research questions. The analysis used is either not explained or lacks details enough to have a sense of what was done to obtain the results. Themes are not identified.	Data analysis is appropriate for the protocol and research questions. The analysis used is explained, but lacks details. Themes are identified, but not categorized.	Data analysis is appropriate for the protocol and research questions. The analysis used is thoroughly explained. Themes are identified and categorized.
Results	Results are not presented appropriately. Data are presented inaccurately. Results are difficult to understand. Results are not tied back to the data. Results are not interpreted accurately.	The majority of the results are presented appropriately. Results are fairly easy to understand. Some of the results are tied back to the data. Results are partially interpreted accurately.	Results are presented appropriately. Results are clear and easy to understand. Results are tied back to the data. Results are interpreted accurately.
Implications and reflection	Implications from the data are inadequately discussed. It is not clear the author is able to interpret the findings. The implications are not tied back to the results. The reflection does not describe what the student learned from this project. There are no suggestions as to	Implications from the data are adequately discussed. It is clear the author is able to interpret the findings. However, the implications are not tied back to the results. The reflection describes what the student learned from this project. There is one suggestion as to	Implications from the data are well-developed and fully discussed. The implications are connected back to the results of the data analysis. The reflection describes what the student learned from this project. There are two or more suggestions as to what could be done differently or what could be improved.

	<p>what could be done differently or what could be improved. There is no evidence that the student has an emerging understanding of the complexity of research.</p>	<p>what could be done differently or what could be improved. There is some evidence that the student has an emerging understanding of the complexity of research.</p>	<p>There is ample evidence that the student has a firm understanding of the complexity of education research.</p>
<p>Grammar/Format/Standards of Writing</p>	<p>Poor sentence structure, language usages, standards of grammar are under developed or refined. Sentences and paragraphs do not flow together. Punctuation is not consistently correct.</p>	<p>Most of the writing conventions are demonstrated. Some of the sentences and paragraphs are awkward. Some misused punctuation is evident.</p>	<p>Excellent grammar, punctuation, and writing conventions. Sentences and paragraphs flow well together. Logical arguments are made.</p>

Score: ____ 12

COURSE EDCI 559
PBA Rubric: Final Action Research Proposal

Name: _____

Date: _____

CRITERIA	No Evidence Not Met 0	Beginning (Limited evidence) 1	Developing (Clear evidence) 2	Accomplished (Clear, convincing, substantial evidence) 3	SCORE
Introduction					/3
Describes the problem					
Clear research question stated					
Significance of problem addressed					
Literature Review					/3
Research studies are used (minimum 10)					
Analysis of literature is evident					
Synthesis of literature is evident					
Context and Intervention Provided					/3
Setting described					
Population identified					
Intervention thoroughly described					
Research Design					/3
Design of study matches goals					
Formative and Summative Assessments included					
Data sources appropriate					
Analysis of Data					/3
Appropriate analysis for data collected described					
Implications from data proposal estimated or hypothesized					

References					/3
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 (at least 10 are scholarly)					
Overall Style					/3
Clear, concise writing					
Grammar and punctuation					
Multiple levels of headings used to organize ideas					
Subtotal					/21
Reflection					/4
Total					/25

Comments