GEORGE MASON UNIVERSITY COLLEGE OF EDUCATION AND HUMAN DEVELOPMENT Division Elementary, Literacy and Secondary Education

EDPD502.635

"Teacher as Researcher": Use Action Research to Increase Student Learning in Science
3 Credit Graduate Fall Semester/2013
Wednesday/3:30- 6:30 pm
September 25, 2013 - January 29, 2014
Kelly Leadership Center

Room 3011

Instructor: *Dr. Kimberly McGee*

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COURSE DESCRIPTION:

Teacher researchers will utilize the Action Research Cycle to improve professional practice resulting in continuously improving student learning. Educators will explore a variety of learning experiences and pedagogy applications that foster student interest, involve students in the inquiry process, advance critical thinking, and develop conceptual understanding of scientific topics.

COURSE FORMAT:

During the course participants will engage in in-class and online class discussions, one-on-one meetings with the course instructor, small group meetings, and oral presentations.

LEARNER OUTCOMES:

Upon completion of the course, learners will be able to accomplish the following:

- Define and design Action Research for individual use or for a PLC.
- Utilize the Action Research Cycle to improve professional practice resulting in continuously improving student learning.

PROFESSIONAL STANDARDS:

This professional development opportunity supports Prince William County Public Schools Professional Educator Performance Standard I (Knowledge of Students), Standard II (Instructional Planning), Standard III (Instructional Delivery), Standard IV (Assessment of and for Student Learning), Standard V (Learning Environment), Standard VI (Professionalism), and Standard VII (Student Academic Progress).

REQUIRED/SUPPLEMENTAL TEXTS AND/OR READINGS:

Provided Texts:

Mills, G. E. (2014). Action Research: A Guide for the Teacher Researcher (5th edition). Prentice Hall, Upper Saddle River, New Jersey.

Supplemental readings and additional resources will be provided electronically in the course SchoolFusion website.

COURSE REQUIREMENTS, PERFORMANCE-BASED ASSESSMENTS, EVALUATION CRITERIA, AND GRADING SCALE:

The assignments for this course include personal reflections, scientific journal summaries, and a formal write up of the Action Research report. All assignments should be written for clarity and edited carefully for grammatical errors. Use a consistent format (such as APA) for citing and listing references. All assignments should be submitted to the instructors electronically by the due date.

Attendance & Participation (20%)

Attendance and active participation are vital to the successful completion of the course. You are assessed at the conclusion of each class session. Every class participant is expected to contribute to class activities and discussions.

Attendance requirements:

- Participants must attend all face to face, virtual, small group, and one-on-one sessions
- Discussion forums are asynchronous (everyone can be on at different times) but participants must meet contribution requirements
- Participants must schedule classroom observations in a timely manner as specified by the instructor and plan for the one-on-one visit to follow the observation.

Participation for discussion forum requirements:

- An original post between 100-200 words is required
- Participants must submit a 100 word respond to at least two (2) classmates
- All responses must be submitted during the assigned timeframe

Reactions/Article Summaries (20%)

Journal summary requirements:

- 100-150 word summary of the article
- 12 point font, Times New Roman or Arial (or the font in Schoolfusion)
- Source sited in APA or MLA format or a copy of the article with source listed
- Summaries must be posted in the required location in the online discussion forum Written reaction requirements:

• 150-200 reaction statement

• 12 point font, Times New Roman or Arial (or the font in Schoolfusion)

• Reactions must be posted in the required location in the online discussion forum. Focus on how you will use information and strategies learned in class in your classroom instruction and tell your opinion of activities and class discussions.

Action Research Report (40%)

Class participants will prepare a detailed Action Research Report. The report will include an area of focus statement, research questions, brief review of literature, data collection, data analysis, and your action plan. The course instructor will provide resources/rubric during the course. Participants will present a summary of area of focus, research questions, review of literature, data collection, data analysis, and your action plan to the entire class as a presentation.

Written Requirements:

- Utilize the report format provided by the instructor
- Visuals should be used to present the Action Research Report (example: PowerPoint and/or videos)
- Accurately site references using APA format (course instructor will provide examples)
- Copies of all resources/materials used or created for each class participant

Oral Presentations & Small Group Discussions (20%)

Actively participate in a small group discussion focused on your research question and data collection methods to a group of peers. Classmates will provide feedback and pose questions for clarity. Peer critiques may be used and assessed.

Prepare and give an oral presentation of your Action Research project and your Action Research Report. The presentation should be a summary of the research you conducted and not actually teaching the lesson(s). A time limit for the presentation will be established based on the number of class participants. The course instructor will establish the timeframe on the first night of class.

Presentation requirements:

- 1-2 small group presentations
- 1 class or large group presentation
- Visuals must be used to present research (example: PowerPoint or videos)
- Handouts (as applicable) of data collection instruments and other resources used during project
- Minimum of 15 minutes maximum of 30 minute presentation (*instructor will specify*)

GRADING SCALE:

- **A** 95 100 percent
- **A-** 90 94 percent
- \mathbf{B} + 85 89 percent
- **B** 80 − 84 percent
- \mathbf{C} 70 75 percent
- **F** 69 percent or below

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/policies/responsible-use-of-computing/].
- 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/

Date	Topic/Learning Experiences	Readings/Assignments
Class Meeting Wednesday, September 25, 2013 (Virtual Meeting, WebEX 3:30 – 6:30 PM	Course participants will meet virtually to begin learning the details of the course and to receive required reading assignments.	Begin required readings for the course.
Session One: Wednesday, October 2, 2013 (KLC Room 3011) 3:30 – 6:30 PM	 Course overview, objectives, expectations What is Action Research? Identify types of Action Research 	 Complete starting point questions. Complete all the required discussions. Complete all required reading assignments from textbooks and provided articles.
Session Two: Wednesday, October 9, 2013 (KLC Room 1502 A & B) 3:30 – 6:30 PM	 Review Action Research Planning Guide Discuss how Action Research works Introduce the Action Research cycle Discuss methods of Action Research 	 Complete the Action Research Planning Guide provided by the instructor. Continue to complete starting point questions. Complete all the required discussions. Complete all required reading assignments from textbooks and provided articles.
Session Three: Wednesday, October 16, 2013 (KLC Room 3011) 3:30 – 6:30 PM	Discuss and debate what good research questions are Participate in small group discussions focused on Action Research Planning Guide	 Solicit feedback from content coworkers, PLC, and other work groups to gather information about your research questions. Complete all the required discussions. Complete all required reading assignments from textbooks and provided articles.
Session Four: Wednesday, October 23, 2013 (KLC Room 3011) 3:30 – 6:30 PM	 Group discussion on developing a good research question Refine the question Working towards a research plan Conduct a brain writing activity in class 	 Collect work samples from two students for the next session Continue finalize your Action Research Planning Guide, research question development and data collection instruments Schedule classroom visit and one-on-one discussion Complete all the required discussions. Complete all required reading assignments from textbooks and provided articles.
Session Five: Wednesday, October 30, 2013 (KLC Room 3011) 3:30 – 6:30 PM	 Discuss how to collect data in a classroom setting Discuss why researchers triangulate data Explore and discuss how to triangulate data 	 Finalize your Action Research Planning Guide, research questions, and data collection instruments Continue to schedule classroom visit and one-on-one discussion Complete all the required discussions.

Session Six: Wednesday, November 6, 2013, 2013 (KLC Room 3011) 3:30 – 6:30 PM	 Finalize Action Research Planning Guide, research questions, and data collection instruments Discuss how to analyze data Discuss expectations for data collect and expectations for communication during this time 	 Complete all required reading assignments from textbooks and provided articles. Finalize classroom visits and one-on-one sessions 	
Data Collection: Wednesday, November 7, 2013 Through Wednesday, January 7, 2013	 Collect classroom and student data using instrument you developed Review data regularly and reflect on professional practice 		
Session Seven: Wednesday, January 8, 2014 (KLC Room 3011) 3:30 – 6:30 PM	 Continue discussing how to analyze data Discuss how to write an Action Research report Discuss why a teacher researcher should write an Action Research report 	Continue to finalize Action Research report and presentation of findings	
Session Eight: Wednesday, January 15, 2014 (KLC Room 3011) 3:30 – 6:30 PM	Presenting Action Research	Finalize Action Research report and presentation of findings	
Session Nine: Wednesday, January 22, 2014 (KLC Room 3011) 3:30 – 6:30 PM	Presenting Action Research (reports and data)		
Session Ten: Wednesday, January 29, 2014 (KLC Room 3011) 3:30 – 6:30 PM	Presenting Action Research (report		

Additional instructional hours will be obtained through weekly participation in an online class discussion forum via the Office of Student Learning- Science & Family Life Education SchoolFusion website.