George Mason University  
College of Education and Human Development  

EDUC 675 Section 001  
Research in Secondary Education  

Innovation 328  
Spring 2011  
Mondays 4:30 p.m. – 7:10 p.m.

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Office hours Call/email to set appt.

COURSE DESCRIPTION
This course is designed to help beginning teachers understand and apply concepts and principles of teacher research and study of their practice. Students will learn how to identify and use research literature and systematic evidence to improve practice. Emphasis is placed on linking research and practice to make informed instructional decisions. Pre-requisites: Licensure. To be taken as the last course in the M.Ed. You must have completed ALL of your coursework and internship to take this course.

COURSE OBJECTIVES
This course is designed to enable students to:
1. demonstrate an understanding of the process and components used in teacher research by conducting and assessing a scholarly inquiry situated in their classroom
2. prepare a research proposal which makes explicit links between theory and practice;
3. examine ethical considerations when conducting teacher research;
4. conduct teacher research which includes: research question(s), research proposal; review of related literature, methods, data collection/analysis, findings, discussion of impact on students, teacher, and education field; and abstract;
5. participate in “critical collaborative inquiries” to gain multiple perspectives in interpreting research and for validation and peer review of research;
6. demonstrate integration of national and state standards for content and pedagogy as related to the research question by reflecting on their own teaching practice and its impact on students’ learning;
7. demonstrate skills in the application of technology and use of resources in teacher research

NATURE OF COURSE DELIVERY
The major purpose of this course is for you to learn how to conduct teacher research and apply it in your classroom in order to improve your teaching and students’ learning. Having said that, I would like to let you know that I support you every step of the way and help you scaffold the
components of your final required paper. I also work to promote a professional teaching and learning community of peer critical friend support. Throughout the course, you are completing a step informally that you later insert into your final paper. Build it with a commitment to each step in the process, and it comes together!

The course will be taught through a variety of activities to support the development of students’ self-study teacher research projects involving: whole class and small group discussions, group, pair and group work, online work, and through dialogue and reflections about practice. Web-based documents and correspondence are accessible through a course Blackboard page which students will use regularly throughout the course and which require students to be able to post and access. Must have access to GMU email and with other email account forwarded to GMU mail account on MyMason.

RELATIONSHIP TO PROFESSIONAL STANDARDS
At the end of this course students will demonstrate an understanding and application of subject area standards aligned with the National Content Standards and identified by their Specialized Professional Association (SPA); and an understanding and application of teaching and learning standards as outlined by INTASC.

National Content Standards for student’s respective discipline: NCSS, NCTE, NCTM, NSTA
  National Council for the Social Studies http://www.ncss.org/
  National Council of Teachers of English http://www.ncte.org/
  National Council of Teachers of Mathematics http://www.nctm.org/
  National Science Teachers Association http://www.nsta.org/
  http://books.nap.edu/readingroom/books/nses/
INTASC: Interstate New Teacher Assistance and Support Consortium
  http://www.ccsso.org/content/pdfs/corestrd.pdf
Also visit: The Partnership for 21st Century Skills Framework
  http://www.21stcenturyskills.org/index.php?option=com_content&task=view&id=254&Itemid=120
  National Board of Professional Teaching Standards
  http://www.nbpts.org/the_standards/the_five_core_propositio

COLLEGE OF EDUCATION AND HUMAN DEVELOPMENT EXPECTATIONS
Student Expectations
  • Students must adhere to the guidelines of the George Mason University Honor Code [See http://academicintegrity.gmu.edu/honorcode/].
  • 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/].
  • Students must follow the university policy for Responsible Use of Computing [See http://universitypolicy.gmu.edu/1301gen.html].
  • 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.
  • Students must follow the university policy stating that all sound emitting devices shall be turned off during class unless otherwise authorized by the instructor.
  • Students are expected to exhibit professional behaviors and dispositions at all times.
Campus Resources

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

EMERGENCY PROCEDURES

You are encouraged to sign up for emergency alerts by visiting the website https://alert.gmu.edu. There are emergency posters in each classroom explaining what to do in the event of crises. Further information about emergency procedures exists on http://www.gmu.edu/service/cert.

REQUIRED TEXT


STUDENT STUDY SITE FOR TEXT: http://www.sagepub.com/samaras/
See Chapter Resources for each chapter:
- PowerPoint Slides
- Self-Study Scholar Advice
- Chapter Summary
- Discussion Question

Accompanying Textbook Blog: You are encouraged to visit the textbook blog and add comments at http://teaching-insideout.com/. To subscribe, the URL of my RSS feed to my blog is http://teaching-insideout.com/feed/

REQUIRED READINGS


Other assigned readings made available in class.

COURSE REQUIREMENTS AND EVALUATION

Participation and Class Assignments 30%
1. Attendance, Class Activities, Readings (integrated in assignments)
2. Critical Friend Inquiries in Class and Online (15%)
3. Research Proposal (5%)
4. Draft Literature Review (5%)
5. Peer Review of Research Project Draft (5%)

Teacher Research Project Report 70%
**Weekly Exit Folders**

Each of you will be given an exit folder. At the end of each class, please take a minute and write the BIG ideas you learned for that class and the BURNING questions you have in your exit folder. Please date each entry. Your comments will provide feedback to help me be responsive to your learning needs. Turn your folder in at the end of each class.

1. **Participation and Class Assignments (30%)**

   **Attendance**

   Attendance at all classes, for the entire class period is a course expectation and absence will affect your grade. Successful completion of this course requires attendance at all classes and active participation in the discussions. Being on time is also essential and lateness will affect your grade. Please notify instructor ahead of time if you must miss class and work with peers for missed material.

   **Readings, Class Activities, and Online Participation**

   You are expected to complete all readings and participate in class and all online discussions with openness, consideration, and effort to “hear for” and “listen to” others as you also seek to be understood. Come to class prepared to contribute your critical reflections of your own experiences and ideas presented by your critical friends. Demonstration of positive and collaborative professional dispositions towards colleagues during peer review, along with a willingness to accept constructive criticism is a course expectation and a professional disposition.

   **Critical Friend Inquiries (CFI) (15%)**

   As part of your course participation, you will have the opportunity to work with critical friends in the process of developing your final research project. The CFI are designed to co-support each other’s research and to provide alternative perspectives on interpretation to increase the validity of your research. Your work involves sharing weekly updates in class, sending and corresponding to critical friend research memos, brainstorming ideas as a teacher about the classroom dilemma you are researching, exchanging ideas for strategies and lessons, sharing how you are integrating standards in meaningful ways, and conducting a peer review of the research report. Critical friends provide support as well as a feedback loop to improve your practice. It is critical to have friends in research but critical friends are not critical in their approach with each other. Establish ground rules with “critical friends” and visit them often. Use your group blackboard space to post files and communicate frequently. Specifically:

   You will find the 3 critical friend inquiries (CFI) and examples in our textbook.
   - CFI 5.1, pp. 96-97 Education-related Life History
   - CFI 8.1, pp. 171-172 Pedagogies and Data Collection
   - CFI 11.1, p. 215 Data Analysis

   You will have the opportunity to work in a discipline-based team for peer review of your research draft which is a reciprocal process.
Assignments
Since this is a professional development course (post licensure), high quality work (i.e., “A” work) is expected on all assignments and in class participation. All assignments must be completed. Assignment will be assessed using posted criteria known to the student. For full consideration, all assignments are due to professor electronically in the digital drop box prior to the beginning of class on the day and time they are due, unless otherwise announced. Blackboard will not accept deposits after the due date and time of class.

All written assignments are to be word-processed using Times Roman 12 pt font, double-spaced, and submitted electronically under “Assignments” on MyMason. You need to install Java at java.com to upload assignments. Title each assignment with your last name and the name of the project/assignment, e.g., Smith.ResProp.02.16.10. Keep a copy of all assignments which you will insert into the appendix of your report.


Recommended Weekly Researcher Log
It is highly recommended that you keep a researcher log of progress of your project each week and include it in the appendix of your final report. See Self-Study Research Project Timeline Log in Chapter 2. Table 2.2, pp. 28-29. This is your tentative timeline and tool to self-regulate your progress and the research process.

Research Proposal (5%)
*It must be love:* For your research paper, you should choose a topic that really matters to you. It should be something you’re curious about and willing to spend time researching and learning about. If you aren’t eager to spend several days curled up reading about your topic, then it’s not love, and you need to ditch it and find another topic (Roberts, GMU alumna, 2009).

Write a research proposal. You may also elect to add a visual representation to your research proposal. The idea is for the visual to help you figure out your “thesis” and not to enter an art show. Approach this assignment from where you are and honor its incompleteness as part of the research process. Ask yourself does the proposal give you a solid framework to launch your project. Include each subtitle listed on p. 123 in our textbook. See example on pp. 124-126.

Draft Literature Review (5%)
Post a draft of your literature review on MyMason and begin to ask yourself:

- What does the literature review add to your understanding of your research topic?
- What common topics and themes have you found in the literature?
- What ideas for pedagogical strategies can you adapt from the literature?

Use the topics to design your conceptual framework or mapping of the “big ideas” and connections you find in the literature to your study (See pp. 127-134).
Rubric for Participation

<table>
<thead>
<tr>
<th>Category</th>
<th>Exemplary 30 pts</th>
<th>Accomplished 27-29 pts</th>
<th>Developing 25-26 pts</th>
<th>Undeveloped Below 25 pts</th>
</tr>
</thead>
<tbody>
<tr>
<td>Attendance/Participation</td>
<td>Outstanding Participation; participates regularly and actively in discussions and activities. Promotes conversation focused on the topic. Comments demonstrate a high level of understanding and contribution from assigned readings. Listens actively to peers. Works very closely and consistently with peers/critical friends for feedback and input.</td>
<td>Participates in discussions and activities on a regular basis; questions and comments reveal thought and reflection and contribution from assigned readings. Frequently involves peers in learning and offers feedback.</td>
<td>Does not contribute to discussions or activities very often, but generally reveals some thought and reflection and some contribution from assigned readings. Follows rather than leads group activities. Solicits some peer discussion. Misses classes. Is late for class.</td>
<td>Few meaningful contributions to class discussions. Little evidence of participation and contribution from assigned readings. Shows little concern for peers’ learning or input. Misses classes and is late for class. Does not make up work.</td>
</tr>
</tbody>
</table>

2. **Teacher Research Project (70%)**

You are required to write a report that includes the following sections: Rationale/Introduction, Research Question, Review of Related Literature, Method, Context, Participants, Data Collection, Analysis, Findings, Limitations, and Discussion including your reflections of self-study and implications for practice/further research. All teacher research reports must adhere to APA format. Your project should be useful to you and your students. A written report that includes the specific headings and subheading are posted below. They are also available on MyMason and pp. 244-249 of our textbook. Look at them at the beginning of the semester so you can see where we are going.

**Performance-Based Assessment of Teacher Research Project**

Criteria for Evaluating the Research Report (70 Total Possible Points)

**Abstract**
1. Have you provided a single, articulate, concise paragraph of no more than 150 words
2. Does you abstract concisely describe your purpose and the context, method, key findings, and significance of your research?
   
   5 points possible

**Rationale**
1. Have you stated the purpose of your study in the broader context of your work?
2. Have you clearly and concisely explained why this research is important? Have you addressed the broader educational and social significance of this research?
3. Have you offered perspectives that shaped this question for you?
   
   5 points possible
Statement of the Research Problem/Question
1. Have you clearly and concisely stated the research problem?
2. Have you clearly and concisely state your main research question and any subquestions?
5 points possible

Review of Literature and Conceptual Framework
1. Did you conduct an ongoing literature review which informed your research?
2. Is the review relevant and connected to your study?
3. Is the review adequate, coherent, and analytical?
4. Does the review include references from a variety of sources?
5. Is the review integrated into a conceptual framework with a mapping of the theories, literature, and phenomena that help to inform your study?
10 points possible

Research Method
1. Have you described your research context; community, school, and classroom context?
2. Have you included demographic information of participants?
3. Did you include your reflection of the problem? e.g., behaviors observations, possible causes?
4. Have you explained the reasons for your pedagogies based on your noticing of your classroom and the literature reviewed?
5. Have you described in detail what data you collected, how you collected it, and when you collected it, including data generated from your pedagogies and strategies?
6. Are your data from multiple sources?
7. Did you include a description of the pedagogical strategies you enacted?
8. Did you explain how you analyzed your data and include a data audit trail?
9. Have you included and explained the role of your critical friends in your data interpretations and validation?
10. Did you explore using visuals and technologies for analyzing and displaying your findings in a coherent manner?
15 points possible

Findings
1. Did you restate your research question and what was found through your research?
2. Are the findings thoroughly and adequately presented?
3. Is there convincing evidence to support your themes?
4. Is there connection and coherence among the separate themes?
5. Did you explain your findings to your critical friend to gain his or her perspective on your interpretations?
10 points possible

Discussion, Reflections on Self-Study of Teaching, and Implications
*You will present this section orally as well for our last class.*
1. Have you adequately explained the possible implications of your study to your students’ learning?
2. Have you adequately explained the possible implications of your study to your teaching and reframing of your practice? Revisit your original research question. Take a retrospective journey and reflect back on the “self” or your role and the conscious (and perhaps at the time unconscious) consequences of your actions in the process of studying your teaching practice.

10 points possible
3. Have you adequately explained the possible implications to the education field?
4. Have you adequately explained the relevance of your study to national and state education standards?
5. Have you discussed any limitations?
6. Have you identified areas for future research possibilities?

10 points possible

References and Appendix
1. Did you follow the APA style for the report for a running head, page numbering, references, citations, and the appendix? Does the report include a title page with project title, author’s name, and author’s professional affiliation?
2. Are references current and from different sources?
3. Are all references cited in the research report included in the references? Have you provided a complete reference list of all print and nonprint (Internet) references?

5 points possible

Organization, Grammar, and Mechanics
1. Is the report coherent, concise, and well structured with a clear purpose?
2. Is the report grammatically correct with proper usage of language?
3. Does the report have your distinctive focus and voice? Have you used professional language (i.e., no jargon)? Have you written in an accessible style and presentation?

5 points possible

Grading Scale for Research Project:

Exemplary: 70 points. Substantially meets the project and report requirements. All criteria are addressed fully.


Developing: 58-62 points. Meets some, but not all, of the project and report requirements. Weaknesses in addressing some of the criteria. Consider revision.

Undeveloped: 57 points and below. Does not meet the project and report requirements. Weaknesses in addressing the majority of the criteria. Needs significant revision.

Please note that B- is not a passing grade in licensure courses. A student who receives an overall grade of B- must repeat the course.

Grading Scale

<table>
<thead>
<tr>
<th>Grade</th>
<th>Standards</th>
<th>Grading</th>
<th>Grade Points</th>
<th>Graduate Courses</th>
</tr>
</thead>
<tbody>
<tr>
<td>A+</td>
<td>Substantially Exceeds Standard</td>
<td>99 - 100</td>
<td>4.00</td>
<td>Satisfactory / Passing</td>
</tr>
<tr>
<td>A</td>
<td>Meets Standard</td>
<td>93 – 98.9</td>
<td>4.00</td>
<td>Satisfactory / Passing</td>
</tr>
<tr>
<td>A-</td>
<td>Meets Standard</td>
<td>90 – 92.9</td>
<td>3.67</td>
<td>Satisfactory / Passing</td>
</tr>
<tr>
<td>B+</td>
<td>Approaches Standard</td>
<td>88 – 89.9</td>
<td>3.33</td>
<td>Satisfactory / Passing</td>
</tr>
<tr>
<td>B</td>
<td>Approaches Standard</td>
<td>83 – 87.9</td>
<td>3.00</td>
<td>Satisfactory / Passing</td>
</tr>
<tr>
<td>B-</td>
<td>Approaches Standard</td>
<td>80 – 82.9</td>
<td>2.67</td>
<td>Satisfactory* / Passing</td>
</tr>
</tbody>
</table>
READING RESOURCES

Teacher Research

Qualitative Analysis

Quantitative Analysis and Statistics

Research and Writing

**Writing a Research in Action Paper**
[Writing](http://www.gmu.edu/departments/english/composition/wits/research/index.html)

**Help with Research** [http://library.gmu.edu/mudge/Dox/basics.html](http://library.gmu.edu/mudge/Dox/basics.html)

**Data Collecting Tools:** Go to Google docs, then spreadsheets to create survey. Also Survey Monkey [http://www.surveymonkey.com/home.asp](http://www.surveymonkey.com/home.asp)

**National Reports and Test Reporting Centers**
- TIMSS and PIRLS The International Math and Science Study and International Literacy Study [http://www.timss.org/](http://www.timss.org/)

**Virginia State Standards**
- Virginia Department of Education [http://www.pen.k12.va.us/](http://www.pen.k12.va.us/)
- State of Virginia, SOL Resources [http://www.pen.k12.va.us/VDOE/Instruction/sol.html](http://www.pen.k12.va.us/VDOE/Instruction/sol.html)

*Also visit the Self-Study Resource Center at [http://www.sagepub.com/samaras/](http://www.sagepub.com/samaras/) for chapter summaries, powerpoints, and more.*
<table>
<thead>
<tr>
<th>Week</th>
<th>Topic</th>
<th>Readings/Assignment Due</th>
</tr>
</thead>
<tbody>
<tr>
<td>1 1/24</td>
<td>Overview of Course</td>
<td>In class activity: “I wonder about” inquiry. Use Critical Friend Inquiry (CFI) 1.1 pp. 5-6</td>
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<tr>
<td></td>
<td>Self-Study Teacher Research ~ What and Why</td>
<td></td>
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<tr>
<td></td>
<td>Finding and Loving your Research Question</td>
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</tr>
<tr>
<td>2 2/7</td>
<td>Getting to Know Our Learning Community through Research Artifacts</td>
<td><strong>Read</strong> McNiff, Lomax, &amp; Whitehead, pp. 18-25 on e-reserves (“research”)</td>
</tr>
<tr>
<td></td>
<td>Making a Timeline for Your Project</td>
<td><strong>Read</strong> Preface, Chapters 1 &amp; 2 Overview Chapter 12 Overview Self-Study Resource Center at <a href="http://www.sagepub.com/samaras/">http://www.sagepub.com/samaras/</a></td>
</tr>
<tr>
<td></td>
<td>Writing a Research Rationale</td>
<td><strong>Bring</strong> Research Artifact <strong>POST</strong> Artifact Essay Use CFI 5.3 pp. 104-106</td>
</tr>
<tr>
<td></td>
<td>Form Critical Friend Groups</td>
<td></td>
</tr>
<tr>
<td>3 2/14</td>
<td>Understanding Your Funds of Knowledge as a Teacher Researcher</td>
<td>Begin to <strong>Read</strong> Chapters 4, 5, &amp; 6 <strong>POST</strong> Education-related Life History to CF &amp; Professor Use CFI 5.1 pp. 95-98 *Post to your Critical Friend Team on Group Page and Professor under “Assignments”</td>
</tr>
<tr>
<td></td>
<td>Designing Your Teacher Research Project</td>
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<tr>
<td></td>
<td>What is data? What is analysis?</td>
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<tr>
<td></td>
<td>Beginning a Literature Review</td>
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<tr>
<td>5 2/28</td>
<td>Develop Your Literature Review *ONLINE WORK</td>
<td><strong>Read</strong>: Chapters 9 &amp; 10 <strong>POST</strong> Draft Review of Literature and Wordle due any time this week for Professor Feedback</td>
</tr>
<tr>
<td>Date</td>
<td>Activity</td>
<td>Memo</td>
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</table>
| 3/7   | Dialoguing about Data                         | POST *Data Collection/Pedagogical Strategies Research Memo to CF & Professor*  
Use Critical Friend Inquiry & Response. CFI 8.1, pp. 171-172  
**Bring** your data to class |
| 3/14-3/20 | No Class  
Spring Break | **Have a Wonderful Spring Break!** |
| 3/21 | Data Analysis Workshop                        | Read Chapter 11 |
| 3/28 | Peer and Professor Review of Analysis  
*ONLINE WORK* | POST *Data Analysis Research Memo to CF & Professor*  
Use CFI 11.1 & Response & Response, p. 215 |
| 4/4  | Validation and Findings Workshop             | Read Chapter 12  
Dialogue with critical friends about preliminary analysis and findings.  
**Bring** a piece of data for check coding.  
CFI 11.2 pp. 220 will be done in class workshop |
| 4/11 | Peer and Professor Review of Project  
*ONLINE WORK* | POST: *Research Paper Draft with Project Title to CF & Professor* |
| 4/18 | Writing, formatting, and refining the report | POST: *Feedback on Research Draft to CF & Professor*  
Use tracking and comments feature on Microsoft Office |
| 4/25 | Abstract Writing Workshop  
Final Reflections and Next Steps  
Course Evaluations | Read Chapter 13  
**Bring:** Bring your abstract draft on jump drive or send to your email. |
| 5/2  | Present Reflections and Next Steps using Discussion Section of Your Final Project | Final Day to POST FINAL RESEARCH PROJECT and  
*BRING* hard copy of Final Research Project Paper to class |
| 5/2  | Secondary Education Program Exit Conference  
7:30-10 pm | This will be explained at our first class. SAVE the day and time. |