EDCI 702 DL1: Internship in Mathematics Education
3 Credits, Fall 2014
Mondays, 4:30-7:10/Thompson 1020 (Face-to-Face & Online)

PROFESSOR:
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COURSE DESCRIPTION:

A. Prerequisites/Corequisites
   Internship Math Education

B. University Catalog Course Description
   Offers practical experiences and professional challenges for mathematics leaders in authentic educational settings. Activities emphasize school-based and classroom based research and leadership. Develops the skills and abilities of the mathematics leaders to analyze classroom practice, investigate teaching and disseminate information about mathematics education in professional development settings for teachers.

C. Expanded Course Description
   Not applicable.

DELIVERY METHOD:
This course will be delivered both face-to-face and online using a **synchronous** format via the Blackboard learning management system (LMS) housed in the MyMason portal. You will log in to the Blackboard course site using your Mason email name (everything before "@masonlive.gmu.edu) and email password. The course site will be available on August 25, 2014.

The delivery of this course combines discussion, independent study, student group presentations, writing, and online meetings/assignments. Access to Blackboard and GMU email are required to participate successfully in this course. All communication and announcements from the instructor will be sent via Blackboard or to students' George Mason University email addresses.

In our online learning community, we must be respectful of one another. Please be aware that innocent remarks can be easily misconstrued. Sarcasm and humor can be easily taken out of context. When communicating, please be positive and diplomatic. I encourage you to learn more about Netiquette.

Because of the online nature of the course, students need at minimum access to a computer with internet access, a microphone and headphones in order to participate in online class meetings effectively. More information about technology specifications can be found at http://masononline.gmu.edu/faqs/ (the Online Learning site for George Mason University).

TECHNICAL REQUIREMENTS:
To participate in this course, students will need the following resources:

- Access to a Windows or Macintosh computer with at least 2 GB of RAM and to a fast, reliable broadband Internet connection (e.g., cable, DSL). For optimum visibility of course material, the recommended computer monitor and laptop screen size is 13-inches or larger. For the amount of computer hard disk space required to take an online course, consider and allow for the space needed to: 1) install the required and recommended software and, 2) save your course assignments.
- You will need computer speakers or headphones to listen to recorded content.
- A headset microphone for use with the Blackboard Collaborate web conferencing tool
- High-speed Internet access with a standard up-to-date browser, either Internet Explorer or Mozilla Firefox. Opera and Safari are not compatible with Blackboard;
- Consistent and reliable access to their GMU email and Blackboard, as these are the official methods of communication for this course. To access Blackboard Courses log into http://mymason.gmu.edu, select the Courses Tab.
- To access Blackboard Collaborate select Tools from the Blackboard Course Menu, then select Blackboard Collaborate.
- Students may be asked to create logins and passwords on supplemental websites and/or to download trial software to their computer or tablet as part of the course requirements.
- You will need access to Microsoft Office.
- For hardware and software purchases, visit Patriot Computers.
- The following software plug-ins for Pcs and Macs respectively, available for free downloading by clicking on the link next to each plug-in:
  - Adobe Acrobat Reader: http://get.adobe.com/reader
  - Windows Media Player: http://windows.microsoft.com/en-US/windows/downloads/windows-media-player
  - Apple QuickTime Player: www.apple.com/quicktime/download/
- **Note**: If you are using an employer-provided computer or corporate office for class attendance, please verify with your systems administrators that you will be able to

install the necessary applications and that system or corporate firewalls do not block access to any sites or media types.

EXPECTATIONS:

- **Course Week:**
  Our course week will begin on the day that our synchronous meetings take place as indicated on the Schedule of Classes.
- **Log-in Frequency**:
  Students must log-in for all scheduled online synchronous meetings. In addition, students must actively check the course Blackboard site and their GMU email for communications from the instructor, at a minimum this should be 2 times per week.
- **Participation**: Students are expected to actively engage in all course activities throughout the semester, which include viewing of all course materials, completing course activities and assignments, and participating in course discussions and group interactions.
- **Technical Competence**: Students are expected to demonstrate competence in the use of all course technology. Students are expected to seek assistance if they are struggling with technical components of the course.
- **Technical Issues**: Students should expect that they could experience some technical difficulties at some point in the semester and should, therefore, budget their time accordingly. Late work will not be accepted based on individual technical issues.
- **Workload**: Expect to log in to this course **at least 2 times a week** to read announcements, participate in the discussions, and work on course materials. Remember, this course is **not** self-paced. There are **specific deadlines** and **due dates** listed in the **CLASS SCHEDULE** section of this syllabus to which you are expected to adhere. It is the student's responsibility to keep track of the weekly course schedule of topics, readings, activities and assignments due.
- **Advising:** If you would like to schedule a one-on-one meeting to discuss course requirements, content or other course-related issues, and you are unable to come to the Mason campus, we can meet via telephone or web conference. Send me an email to schedule your one-on-one session and include your preferred meeting method and suggested dates/times.
- **Netiquette:** Our goal is to be **collaborative**, not combative. Experience shows that even an innocent remark in the online environment can be misconstrued. I suggest that you always re-read your responses carefully before you post them to encourage others from taking them as personal attacks. **Be positive in your approach to others and diplomatic with your words.** I will do the same. Remember, you are not competing with each other but sharing information and learning from one another as well as from the instructor.

LEARNER OUTCOMES or OBJECTIVES:

This course is designed to enable students to:

- Develop the skills and abilities of the mathematics specialist to analyze classroom practice, investigate teaching and disseminate information about mathematics education in professional development settings for teachers.

PROFESSIONAL STANDARDS (Association for Mathematics Teacher Educators (AMTE)):
This course is designed to meet the following *Standards for Elementary Mathematics Specialists* as outlined by the Association for Mathematics Teacher Educators (p. 7, 2010).

A. **Leadership Knowledge and Skills (Section III)**
Elementary Mathematics Specialist professionals need to be prepared to take on collegial nonevaluative leadership roles within their schools and districts. They must have a broad view of many aspects and resources needed to support and facilitate effective instruction and professional growth. They must be able to:
- Use professional resources such as professional organization networks, journals, and discussion groups to be informed about critical issues related to mathematics teaching and learning, e.g., policy initiatives and curriculum trends.
- Select from a repertoire of methods to communicate professionally about students, curriculum, instruction, and assessment to educational constituents—parents and other caregivers, school administrators, and school boards.
- Plan, develop, implement, and evaluate professional development programs at the school and district level and support teachers in systematically reflecting and learning from practice.
- Evaluate educational structures and policies that affect students' equitable access to high quality mathematics instruction, and act professionally to assure that all students have appropriate opportunities to learn important mathematics.

REQUIRED TEXTS:
Samaras, A. P. (2010). *Self-study teacher research: Improving your practice through*

  collaborative inquiry. Thousand Oaks, CA: Sage.

COURSE ASSIGNMENTS AND EXAMINATIONS:
1. Assignment descriptions
   a. **Participation (20%)**

      Attendance: Attendance at all scheduled online meetings, for the entire class period is a course expectation and absence will affect your grade. Successful completion of this course requires attendance at all meeting 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.

      Assignments: Since this is a professional development course, 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 they are due, unless otherwise announced. All written assignments are to be word-processed using Times Roman 12 pt font, double-spaced, and POSTED electronically on our class Blackboard drop box. Please title each assignment with your last name and the name of the project/assignment, e.g., Smith.ResProp.02.16.12.

      Readings, Class Activities, and Online Participation: As a distance learning course, there are a significant number of online discussions and activities you will need to complete independently. 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 on both 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.

      Critical Friend Work: As part of your course participation, you will have the opportunity to work with a critical friend(s) to catalogue 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 and ideas for strategies and lessons, sharing how you are integrating standards in meaningful ways, and peer review of your research report. The memos are designed to co-support each other's research and to provide alternative perspectives on interpretation to increase the validity of your research. 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 blackboard space to post and respond to each other's memos in the "Critical Friend." Specific critical friends inquiry (CFI) assignments are listed in the course schedule.

Weekly Researcher Log: Post your weekly updates and progress of your teacher research project each week on your personal researcher log. **(See Self-Study Research Project Timeline in Chapter 2. Table 2.2)**. This is your tentative timeline and tool to self-regulate your progress and the research process.

Rubric for Participation				
Category	**Exemplary**	**Accomplished**	**Developing**	**Undeveloped**
	30 Points	27-29 Points	25-26 Points	Below 25 Points
Attendance/ Participation Attendance and participation are critical components of this course. It gives you the opportunity to learn from and contribute to building a positive classroom experience and community. Participants contribute to each others' learning in critical friend work by actively listening, exchanging ideas, sharing learning from reading and websites, and	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. Prompts peer feedback and input.	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 discussion.	Doesn't 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.	Few meaningful contributions to class discussions. Little evidence of participation and contribution from assigned reading. Shows little concern for peers' learning or input. Misses classes and is late for class. Does not make up work.

supporting each other's efforts				

b. Professional Development Design (30%)

The student will design, develop, implement and refine a professional development experience (1-2 hours) for teachers. This should include a plan for the session and any accompanying materials for the professional development (list physical manipulatives), a written reflection paper about the professional development experience (3-5 pages) describing how the goals for the professional development were met, what was learned about teaching teachers, and how the professional development could be modified for future use. You are required to post your Professional Development Project on Taskstream. For a complete rubric and grading criteria please see the rubric at the end of the syllabus.

1. Session Plan (15 Points Possible): The plan should outline the objectives for the session, detail the activities that the teachers will engage in during the session, and provide opportunities for interaction and discussion of the topics. It should be written with enough detail that someone else could implement the session. Similar to a lesson plan for K-12 students, it should also include possible questions the teachers might ask and possible responses. The session should be 1-2 hours.
2. Supplementary Materials (5 Points Possible): Any handouts or other documents (e.g., articles) created for the teachers to take with them or takeaway from the session
3. Reflection Paper (3-5 pages) (10 Points Possible): A narrative including responses to the following
   a. Rationale for the topic (why did you select this topic?)
   b. What did you learn about teaching teachers?
   c. What changes would you make to the session?
   d. What did you learn about teachers' thinking related to your topic?

c. Teacher Research Project Report & Presentation (50%)

You are required to write a final 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. Your project should be useful to you and your students. A written report that includes the specific headings and subheading are listed in Chapter 12 of the textbook. The final report will be submitted on Taskstream.

In addition to the final report, students will submit assignments throughout the semester that will support the development and implementation of their project: a research proposal and a draft literature review. Finally, students will present their findings in the last class session of the semester.

A. Research Proposal (5 points for on-time submission, see course schedule): 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 with it and honor its incompleteness as part of the research process. Ask yourself does the written or visual proposal and presentation include or demonstrate:

- **Purpose: A clearly defined focus and purpose**
  What is the problem/issue to be addressed?

- **Rationale: Why you chose to explore this research topic and why it matters to others**
  What is going on your classroom which brings your attention to this problem/issue? What are your hunches about the reasons for this problem/issue? Why are you interested in this topic and why does it matter to you, your students, and the field?

- **Method and Data Sources:** How do you propose to go about exploring your inquiry? What is your context? Who are your participants? What are you considering as possible pedagogical strategies? What data sources are you considering that would be available to you?

B. Draft Literature Review (5 points for on-time submission, see course schedule): Please post your draft literature review.

- **Consider:**
  - 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 and themes to design your conceptual framework or mapping of the "big ideas" and connections you find in the literature to your study.**

C. Rubric for Self-Study Teacher Research Project Report (Criteria for Evaluating the Research Report; 70 Points Possible):

Detailed information on the requirements of this assignment are in the rubric provided at the back of this syllabus. You are required to post your Self-Study Teacher Research Project on Taskstream. For a complete rubric and grading criteria please see the rubric at the end of the syllabus.

D. Presentation of Research (20 Points Possible):

You are required to present your research project to your peers in an 8 minute presentation that includes a one-page handout of a special research resource for your peers, e.g., a research tool you found, a survey they can adapt in their classroom, technology tool you discovered, student exemplar that highlight the impact of your work, personal reflection to share. Oral presentations need to be professional and stay within the time frame allocated in consideration of peers' presentations.

Grading Scale for Research Project:
*Exemplary***:** 70 points. Exceeds meeting criteria, multiple sources of evidence that substantially exceeds requirements.

Accomplished: 63-69 points. Provides convincing evidence of sound work, substantially meets requirements.

Developing: 58-62 points. Provides basic and somewhat convincing evidence that moderately meets criteria. Consider revision.

*Undeveloped***:** 57 points and below. No evidence or little evidence of meeting the criteria.

2. Assignment and exam weighting

20%   Participation
- Attendance
- Readings, Class Activities and Online Participation
- Critical Friend Work
- Weekly Researcher Log

30%   Professional Development Design

50% Self-Study Teacher Researcher Project

All assignments require: American Psychological Association (2010*). Publication Manual of the American Psychological Association.* American Psychological Association: Washington, DC.

3. Grading policies

The final evaluation criteria utilizes the graduate grading scale and is as follows:

A	93%-100%	B+	87%-89%	C	70%-79%
A-	90%-92%	B	80%-86%	F	Below 70%

TASKSTREAM REQUIREMENTS

Every student registered for any Mathematics Education Leadership course <u>with a required performance-based assessment</u> is required to submit these assessments, Professional Development Project Report and Self-Study Teacher Research Project Report 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.

NOTE: This syllabus and schedule has been revised and adapted from the sample syllabus at http://www.sagepub.com/samaras/resources.htm created by Anastasia Samaras (2011).

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/the-mason-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/**).

ATTENDANCE POLICY

Students are expected to attend the class periods of the courses for which they are registered. In-class participation is important not only to the individual student, but also to the class as a whole. Because class participation may be a factor in grading, instructors may use absence, tardiness, or early departure as de facto evidence of nonparticipation. Students who miss an exam with an acceptable excuse may be penalized according to the individual instructor's grading policy, as stated in the course syllabus (GMU University Catalog; AP 1.6; See http://catalog.gmu.edu/content.php?catoid=25&navoid=4845#attendance)

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 http://gse.gmu.edu/.

PROPOSED CLASS SCHEDULE:

F2F = Face-to-Face   DB = Discussion Board

	Topic	Self-Study Project Timeline and Assignments Due	Professional Development Project Assignments Due
Week 1 Aug. 25th **Interface** F2F	INTRODUCTION TO COURSE Overview of Self-Study Teacher Research Process and Project		
Week 2 Sept. 1st **Interface** No Class	Labor Day	Introductory note emailed about bringing your Critical Friend Inquiry (CFI) CFI 1.1 (p. 5-6) Start noticing your classroom. Brainstorm possible research topics.	
Week 3 Sept. 8th **Interface** Online	RESEARCH QUESTION	Read Preface, Chapters 1 & 2 Overview 12 **POST: Your response to** CFI 5.1 (p. 96-97) and CFI 5.3 (p. 104-105)	

		Please post a picture of an artifact (object) or provide a hyperlink to help us learn a little about your research interests. It's a way for us to get to know each other's areas of research interests. The artifact is a tool to prompt your thinking about your research.	
Week 4 Sept. 15th **Interface** DB	RESEARCH DESIGN	Read: Chapters 5, 6 & 7 **POST Critical Friend Research Memo 1 & Response**: CFI 4.1 (p. 82)	**POST: Topics and Goals for PD Session**
Week 5 Sept. 22nd **Interface** F2F	RESEARCH ETHICS	Read: Chapter 8 & 9 In Class Activity: CFI 7.1	POST & Bring Professional Development Session Plan Draft
Week 6 Sept. 29th **Interface** DB	DATA COLLECTION CLASS WORKSHOP	Read: Chapters 10 & 11 **POST: Response to** CFI 8.1 (p. 171-172)	

Week 7 Oct. 6th **Interface** Online	DATA ANALYSIS CLASS WORKSHOP	**POST Literature Review Draft** Begin Data Collection	
Week 8 Oct. 14th **Tuesday!** **Interface** DB	VALIDATION CLASS WORSKHOP	Continue Data Collection & Begin analyzing data **POST: Data Collection Reflection**	
Week 9 Oct. 20th **Interface** DB	FINDINGS CLASS WORKSHOP	Continue Data Collection & analyzing data **POST Critical Friend Research Memo 3 & Response:** CFI 11.1. (p. 215) Read Chapter 12	
Week 10 Oct. 27th **Interface** F2F	WRITING CLASS WORKSHOP	Continue Data Collection & analyzing data In Class Activity CFI 11.2 (p. 219)	POST & Bring Professional Development Session Plan Final *Present PD Session sometime before Thanksgiving if possible – consult the instructor if you need to make adjustments*

Week 11 Nov. 3 **Interface** Online	CRITICAL FRIEND WORK	Data Analysis, Summarizing findings Dialogue about findings In Class Activity: CFI 11.3 (p. 222)	
Week 12 Nov. 10th **Interface** DB	DISCUSS PAPER DRAFTS	**POST: Research Paper Draft to Critical Friend and Professor**	
Week 13 Nov. 17th **Interface** F2F	CRITICAL FRIEND WORK	**POST: Feedback on Research Paper to Critical Friend**	
Week 14 Nov. 24th **Interface** Online	CHECK-IN ON WRITING	**POST: Abstract Draft** Read Chapter 13	**POST: Reflection about PD Session**

Week 15 Dec. 1st **Interface** F2F	RESEARCH PRESENTATION Exit Reflection on Professional Growth and Continued Goals	**POST and Bring: Final Draft Research Paper**	

Rubric for Professional Development Project

	Satisfactory	Needs Revision	Unsatisfactory	Missing	Score/Level
Session Plan (Objectives & Activities)	1. Plan outlines the objectives for the session, details the activities the teachers will engage in during the session. 2. Plan provides opportunities for interaction and discussion of the topics.	Objectives are not clear or lack detail. Opportunities for interaction or discussion are insufficient, limited or superficial.	Significant components of 1 or 2 are missing.	Section missing.	
Session Plan (Detailed Writing)	1. Plan is written with enough detail that someone else could implement the session. Organization should be logical and clear.	Some details are missing. Components may be difficult to follow or lack organization.	No details are given. It would be very difficult for someone else to implement the session.	Section missing.	
Session Plan (Questions for Teachers)	1. Plan includes questions that teachers might ask and possible responses.	Questions are not high-cognitive demand (requiring higher-order thinking). Questions may be only short answer, yes/no or not conducive to discussion.	Questions or responses are missing. Questions do not align with the objectives/plan for the session.	Section missing.	
Supplementary Materials	Any handouts or other documents (e.g., articles) created for the teachers to take with them or takeaway from the session are included or linked in materials.	Handouts have errors, are difficult to follow/read, or are not sufficiently connected to the objectives.	Some handouts or links are missing.	Section missing.	
Reflection Paper (Rationale & Teaching Teachers)	1. Rationale for the topic is included. Why did you select this topic? 2. What did you learn about teaching teachers from planning and leading this session (list at least 3 specific things).	Rationale is not detailed or is disconnected from teachers' practice. Reflection about learning related to teaching teachers is not sufficiently discussed/explained. Reflection may not be connected to the session. Fewer than three items are included or are too general.	Rationale is not included or supported. Learning about teaching teachers is not included or is superficial/generic.	Section missing.	
Reflection Paper (Changes and Implications)	1. What changes would you make to the session? (List at least 3.) 2. What did you learn about teachers' thinking related to the topic?	Changes are not connected to reflection about the session or not clearly explained. Learning about teachers' thinking related to the topic is not supported with evidence or examples from the session.	Evidence is not given to support changes or reflections about teachers' thinking in the session.	Section missing.	

Rubric for Self-Study Teacher Research Project Report
Criteria for Evaluating the Research Report (70 Points Possible)

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

Rationale *(5 points possible)*
1. Have you clearly and concisely explained why this research is important to you? Have you offered perspectives that shaped this question for you?
2. Did you provide a rationale for why this research is important to your students?
3. Have you addressed the broader educational and social significance of this research?

Statement of the Research Problem/Question *(5 points possible)*
1. Have you clearly and concisely stated the research problem?
2. Have you clearly and concisely state your main research question and any sub questions?

Review of Literature and Conceptual Framework *(10 points possible)*
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?

Research Method *(15 points possible)*
1. Have you described your research context; community, school, and classroom context, and demographic information of participants?
2. Did you explain which self-study method you chose and why?
3. Did you include your reflection of the problem? e.g., 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. Does your data include a variety of sources from multiple sources?
7. Did you include a timeline for the data you collected and your planned interventions?
8. Did you explain how you analyzed your data and include a complete data audit trail?
9. Have you included and explained the role of your critical friends in your data interpretations?
10. Did you explore using visuals and technologies for analyzing and displaying your findings in a coherent manner?

Findings *(10 points possible)*
1. Did you circle back to your research question(s) and discuss how they relate your findings?
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 share your findings with your critical friend?

Discussion, Self-Study of Teaching, and Implications (*10 points possible)*
1. Have you explained the possible implications to your students' learning?
2. Have you explained the possible implications of to your understanding of teaching?
3. Have you offered a self-assessment of how you addressed the self-study methodological components using the Five Foci chart?
4. Have you discussed how you reshaped your practice from critical friend feedback?
5. Does your discussion include evidence of your deep reflection and self-study of teaching?
6. Revisit your original research questions. 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.
7. Have you adequately explained the possible implications to the education field?
8. Have you adequately explained the possible implications of your study to national and state education standards?
9. Have you discussed any limitations and identified future research possibilities?

References and Appendix *(5 points possible)*
1. Did you follow the APA style for the report, references, citations, and appendix?
2. Are references current and from different and high quality sources?
3. Have you provided a complete list of all print and non-print (internet) references?

Organization (*5 points possible)*
1. Does the report include a cover page, title, author's name and professional affiliation?
2. Is your report well organized, grammatically correct, coherent and complete?
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?
4. Are all references cited in the research report included in the references?