

**GEORGE MASON UNIVERSITY
COLLEGE OF EDUCATION AND HUMAN DEVELOPMENT
GRADUATE SCHOOL OF EDUCATION
Mathematics Education Leadership**

EDCI 702 DL1: Internship in Mathematics Education
3 Credits, Spring 2014
Monday 4:30-7:10 Hybrid Class

PROFESSOR(S):

Name: Dr. Pamela R. H. Bailey
Office hours: By Appointment
Office location: Thompson Hall Rm 1803
Office phone: 703-993-5081
Email address: pbailey2@gmu.edu

COURSE DESCRIPTION:

A. Prerequisites/Corequisites

Internship in 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

LEARNER OUTCOMES or OBJECTIVES:

This course is designed to enable students to:

meet the following *NCTM NCATE Standards - Elementary Mathematics Specialists* as outlined by the National Council of Teachers of Mathematics (2012).

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.

PROFESSIONAL STANDARDS (National Council of Teachers of Mathematics):

This course is designed to meet the following *NCTM NCATE Standards - Elementary Mathematics Specialists* as outlined by the National Council of Teachers of Mathematics (2012).

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.

6c) Use and assist teachers in using resources from professional mathematics education organizations such as teacher/leader discussion groups, teacher networks, and print, digital, and virtual resources/collections.

Plan, develop, implement, and evaluate mathematics-focused professional development programs at the school and/or district level; and support teachers in systematically reflecting on and learning from their mathematical practice.

6d) Demonstrate mathematics-focused instructional leadership through actions such as analyzing and evaluating educational structures and policies that affect students' equitable access to high quality mathematics instruction; leading efforts to assure that all students have opportunities to learn important mathematics.

7a) Engage in a sequence of planned field experience to develop interpersonal skills critical for mentoring other teachers and working with school-based personnel, district administrators, and/or others.

Engage in a sequence of planned field experience that involves the development of a broad

experiential base of knowledge and skills working with a range of student and adult learners in a variety of school and professional development settings.

7b) Develop and use leadership skills to communicating to educational constituents about students, curriculum, instruction, and assessment.

Develop and use leadership skills to improve mathematics programs at the school and/or district level; sharing critical issues, policy initiatives, and curriculum trends related to mathematics education; communicating to educational constituents about students, curriculum, instruction, and assessment

REQUIRED TEXTS:

Samaras, A. P. (2010). *Self-study teacher research: Improving your practice through collaborative inquiry*. Thousand Oaks, CA: Sage.

All assignments require:

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

COURSE ASSIGNMENTS AND EXAMINATIONS:

This hybrid online 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, online work, and 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.

COURSE REQUIREMENTS AND EVALUATION

1	Participation Includes: <ul style="list-style-type: none">• Attendance• Readings, Class Activities, and Online Participation• Critical Friend Work• Weekly Researcher Log	20%
2	Professional Development Design	30%
3	Self-Study Teacher Research Project	50%

1. 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 as specified. **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.

TASKSTREAM REQUIREMENTS

Every student registered for any Mathematics Education Leadership course with a required performance-based assessment is required to submit this assessment, Professional Development Design and Self-Study Teacher Research Project (final copy), 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.

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/>.

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:

WEEK	TOPIC	SELF-STUDY TIMELINE AND ASSIGNMENTS DUE	PROFESSIONAL DEVELOPMENT PROJECT ASSIGNMENTS DUE
<p>1 F2F 01/27</p>	<p>INTRODUCTION TO COURSE</p> <p>Overview of Self-Study Teacher Research Process and Project</p>	<p>Introductory note emailed about bringing your Critical Friend Inquiry (CFI) CFI 1.1 (p. 5-6)</p> <p>Start noticing your classroom.</p> <p>Brainstorm possible research topics.</p>	
<p>2 Online 02/03</p>	<p>RESERCH QUESTION</p>	<p>Read Preface, Chapters 1 & 2</p> <p>Overview Chapter 12</p> <p>POST: Your response to CFI 5.1 (p. 96-97) and CFI 5.3 (p. 104-105)</p> <p>Please <u>post a picture of an artifact (object) or provide a hyperlink</u> 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. (CFI 5.3)</p>	
<p>3 ONLINE DB</p>	<p>RESEARCH DESIGN</p>	<p>Read: Chapters 5, 6 & 7</p> <p>POST Critical Friend Research Memo 1 & Response: CFI 4.1 (p. 82)</p>	<p>POST: Topics and Goals for PD Session</p>

02/10			
4 F2F 02/17	RESEARCH ETHICS	Read: Chapter 8 & 9 In Class Activity: CFI 7.1 (p. 154-157)	POST & Bring Professional Development Session Plan Draft
5 ONLINE DB 02/24	DATA COLLECTION CLASS WORKSHOP	Read: Chapters 10 & 11 POST: Response to CFI 8.1 (p. 171-172)	
6 Online 03/03	DATA ANALYSIS CLASS WORKSHOP	POST Literature Review Draft Begin Data Collection	
3/10 – 3/16 SPRING BREAK			
7 F2F 03/17	WRITING CLASS WORKSHOP	Continue Data Collection & Begin analyzing data In Class Activity CFI 11.2 (p. 219)	POST on TaskStream & Bring Professional Development Session Plan Final
8 03/24 ONLINE DB	VALIDATION CLASS WORKSHOP	Continue Data Collection & analyzing data POST: Data Collection Reflection	<i>Present PD Session sometime before class session #13 if possible – consult the instructor if you need to make adjustments</i>
9	FINDINGS	Continue Data Collection & analyzing data POST Critical Friend Research Memo 3	

03/31 Online	CLASS WORKSHOP	& Response: CFI 11.1. (p. 215) Read Chapter 12	
10 04/07 Online	CRITICAL FRIEND WORK	Data Analysis, Summarizing findings Dialogue about findings In Class Activity: CFI 11.3 (p. 222)	
11 04/14 ONLINE DB	DISCUSS PAPER DRAFTS	POST: Research Paper Draft to Critical Friend and Professor	
12 04/21 F2F	CRITICAL FRIEND WORK	POST: Feedback on Research Paper to Critical Friend	
13 04/28 Online	CHECK-IN ON WRITING	POST: Abstract Draft Read Chapter 13	POST: Reflection about PD Session
14 05/05 F2F	RESEARCH PRESENTATIONS Exit Reflection on Professional Growth and Continued Goals	POST and Bring: Final Draft Research Paper	

ASSESSMENT RUBRIC(S):

Rubric for Participation

<i>Category</i>	<i>Exemplary</i> <i>20 pts.</i>	<i>Accomplished</i> <i>17-19 pts</i>	<i>Developing</i> <i>15-16 pts</i>	<i>Undeveloped</i> <i>Below 15 pts</i>
<p><i>Attendance/ Participation</i></p> <p>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 supporting each other's efforts.</p>	<p>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 through research logs and critical friend work.</p>	<p>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 through research logs and critical friend work.</p>	<p>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 through research logs and critical friend work. Misses classes. Is late for class.</p>	<p>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.</p>

2. 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.

The assignment includes the following components to be submitted on Blackboard:

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 as well as key questions you might ask with 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 take away 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?

Professional Development Design Matrix

	SATISFACTORY	AVERAGE	BELOW SATISFACTORY	UNSATISFACTORY	Score/Level
Session Plan: Objectives / goals and time length.	Objectives / goals for the session are given. Session plan is adequate for a 1-2 hour session.	Objectives / goals for the session are given but not complete or lacking clarity. Session plan is	Objectives are not given OR Plans are not sufficient to cover the time length.	Objectives are not given. Plans are not sufficient to cover the time length.	

	SATISFACTORY	AVERAGE	BELOW SATISFACTORY	UNSATISFACTORY	Score/Level
		adequate for a 1-2 hour session.			
Session Plan: Plan of action	Details of the activities that teachers will engage in during the session are clear. Participants are provided opportunities to discuss and interact with the topic.	Details of the activities that teachers will engage in during the session are lacking clarity. Participants are provided opportunities to discuss and interact with the topic.	Details of the activities that teachers will engage in during the session are unclear. Participants are not provided opportunities to discuss and interact with the topic.	Plan of action is not detailed so that it may be implemented by others. Session is not interactive.	
Session Plan: Key questions and responses	Plan includes questions participants might ask and possible responses. Plan includes key questions the	Plan includes questions participants might ask and key questions the facilitator might ask.	Plan includes questions participants might ask or key questions the facilitator might ask. Possible	Plan does not include questions participants might ask and key questions the facilitator might ask.	

	SATISFACTORY	AVERAGE	BELOW SATISFACTORY	UNSATISFACTORY	Score/Level
	facilitator might ask and possible responses.	Possible responses are not given or complete.	responses are not given or complete.		
Supplementary Materials: Handouts, manipulatives, and any resources.	All handouts used in the session are included (for information and for instruction). Manipulatives used are listed as well as any other resources.	Two of the following are included: *Handouts used in the session are included (for information and for instruction). *Manipulatives and for *Resources.	One of the following are included: *Handouts used in the session are included (for information and for instruction). *Manipulatives *Resources.	Handouts are not included. Manipulatives are not listed nor are the resources.	
Reflection Paper: Rationale and teaching teachers	Paper includes a rationale for the topic and What was learned about teaching teachers.	Paper includes a rationale for the topic and What was learned about teaching teachers. One or both lack	One of the following is included: * a rationale for the topic *What was learned about teaching teachers.	Neither the rationale or the ideas about teaching teachers is included.	

	SATISFACTORY	AVERAGE	BELOW SATISFACTORY	UNSATISFACTORY	Score/Level
		clarity.			
Reflection Paper: Teachers' thinking about your topic and possible changes	Paper includes *What you learned about teachers' thinking related to your topic and * changes you would make if presenting the session again.	Paper includes *What you learned about teachers' thinking related to your topic and * changes you would make if presenting the session again. One or both lack clarity.	One of the following is included: *Teachers' thinking about your topic *Changes you would make.	Neither of the requirements are included.	

3. 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.

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? (CFI 4.1)
- **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? (CFI 4.1)
- **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? (CFI 8.1)

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 Total Possible Points)

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?

D. Presentation of Research (20 points)

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.

Self Study Project for Math Specialists revised

Satisfactory Performance value: 5.00	Needs Revision value: 3.00	Insufficient value: 1.00	Unsatisfactory Performance value: 0.00	Score /Level
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	Satisfactory Performance value: 5.00	Needs Revision value: 3.00	Insufficient value: 1.00	Unsatisfactor y Performance value: 0.00	Score /Level
Abstract	<p>1. Have you provided a single, articulate, concise paragraph of no more than 150 words</p> <p>2. Does your abstract concisely describe your purpose, context, method, key findings, and significance?</p>	<p>Abstract is sufficiently describes the purpose, context, methods, key findings and significance but may be too long or too short.</p>	<p>Missing responses to some items in questions 1 or 2.</p>	<p>No abstract included</p>	
Rationale	<p>1. Have you clearly and concisely explained why this research is important to you? Have you offered perspectives that shaped this question for you?</p> <p>2. Did you provide a rationale for why this research is important to your students/teachers/participants?</p> <p>3. Have you addressed the broader educational and social significance of this research?</p>	<p>Rationale may be concise but lacks some detail regarding self or students/teachers who are participants in the study. Description of broader educational significance is not addressed sufficiently for the study.</p>	<p>Missing responses to questions 1, 2 or 3</p>	<p>No rationale included</p>	
Research Problem/ Questions	<p>1. Have you clearly and concisely stated the research problem?</p> <p>2. Have you clearly and concisely stated your main research question and any sub questions?</p>	<p>Research problem may be unclear or unfocused.</p>	<p>Missing responses to items in questions 1 or 2.</p>	<p>No research problem or question description included.</p>	

	Satisfactory Performance value: 5.00	Needs Revision value: 3.00	Insufficient value: 1.00	Unsatisfactor y Performance value: 0.00	Score /Level
Review of the Literature	<p>1. Did you conduct an ongoing literature review which informed your research?</p> <p>2. Is the review relevant and connected to your study?</p> <p>3. Is the review adequate, coherent, and analytical?</p> <p>4. Does the review include references from a variety of sources?</p>	<p>Literature review needs more details about connections to study and relevance to the research problem. References are insufficient. References may not be cited for all sources.</p>	<p>Missing responses to items 1, 2, 3 or 4.</p>	<p>Not included</p>	
Conceptual Framework	<p>1. Is the review integrated into a conceptual framework with a mapping of the theories, literature, and phenomena that help to inform your study?</p>	<p>Conceptual framework is missing theory, literature or information about the phenomenon under investigation. Conceptual framework does not reflect the scope of the study.</p>	<p>Mapping is superficial or lacks details.</p>	<p>Not included</p>	
Research Method (Context/ Participants)	<p>1. Have you described your research context; community, school, and classroom context, and demographic information of participants?</p>	<p>Some minor details about context or participants are missing.</p>	<p>Missing significant details or information about the participants or</p>	<p>Not included</p>	

	Satisfactory Performance value: 5.00	Needs Revision value: 3.00	Insufficient value: 1.00	Unsatisfactor y Performance value: 0.00	Score /Level
			context.		
Research Method (Self-Study and Reflection)	<p>1. Did you explain which self-study method you chose and why?</p> <p>2. Did you include your reflection of the problem? e.g., observations, possible causes?</p> <p>3. Have you explained the reasons for your pedagogies based on your noticing of your classroom and the literature reviewed?</p>	<p>Reflection on the problem lacks detail regarding foundations of the study. Reflection may also lack information about connections between pedagogies/interventions and the literature.</p>	Missing significant components of 1, 2 or 3.	Not included	
Research Method (Data Collection)	<p>1. 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?</p> <p>2. Does your data include a variety of sources from multiple sources?</p> <p>3. Did you include a timeline for the data you collected and your planned interventions?</p> <p>4. Did you explain how you analyzed your data and include a complete data audit trail?</p>	<p>Data collection plan is missing details about process or data collected. Data collection may also not be well-connected to research problem or lacks sufficient variety in sources. Timeline may lack detail or be inconclusive. Visuals do not clearly represent the</p>	Missing significant components from 1, 2, 3, 4, 5, or 6.	Not included	

	Satisfactory Performance value: 5.00	Needs Revision value: 3.00	Insufficient value: 1.00	Unsatisfactor y Performance value: 0.00	Score /Level
	<p>5. Have you included and data. explained the role of your critical friends in your data interpretations?</p> <p>6. Did you explore using visuals and technologies for analyzing and displaying your findings in a coherent manner?</p>				
Findings (Presentation)	<p>1. Did you circle back to your research question(s) and discuss how they relate your findings?</p> <p>2. Are the findings thoroughly and adequately presented?</p>	<p>Findings are presented but do not circle back to the research question sufficiently. Some details may be missing about findings or data is presented superficially.</p>	<p>Missing responses to items in questions 1 or 2.</p>	<p>Not included</p>	
Findings (Evidence & Support)	<p>1. Is there convincing evidence to support your themes?</p> <p>2. Is there connection and coherence among the separate themes?</p> <p>3. Did you share your findings with your critical friend?</p>	<p>Themes are presented but lack sufficient evidence to support them. There is a lack of connection or explanation of coherence among the themes.</p>	<p>Missing significant components of 1, 2 or 3.</p>	<p>Not included</p>	

	Satisfactory Performance value: 5.00	Needs Revision value: 3.00	Insufficient value: 1.00	Unsatisfactory Performance value: 0.00	Score /Level
Discussion, Self-Study of Teaching & Implications (Teaching & Learning, Local)	<p>1. Have you explained the possible implications to your students' learning?</p> <p>2. Have you explained the possible implications of to your understanding of teaching?</p> <p>3. Have you offered a self-assessment of how you addressed the self-study methodological components using the Five Foci chart?</p> <p>4. Have you discussed how you reshaped your practice from critical friend feedback?</p> <p>5. Does your discussion include evidence of your deep reflection and self-study of teaching?</p> <p>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.</p>	<p>Some implications for teachers or students may be missing or insufficiently addressed.</p> <p>Some aspects of self-assessment or reflection about research questions may be missing.</p> <p>Retrospective may lack detail or is superficial.</p> <p>Your actions in the self-study may not be reflected upon.</p>	<p>Missing significant components of 1, 2, 3, 4, 5 or 6.</p>	<p>Not included.</p>	
Discussion, Self-Study of Teaching	<p>1. Have you adequately explained the possible implications to the education field?</p>	<p>Implications are not thoroughly or adequately explained.</p>	<p>Missing significant components of</p>	<p>Not included</p>	

	Satisfactory Performance value: 5.00	Needs Revision value: 3.00	Insufficient value: 1.00	Unsatisfactory Performance value: 0.00	Score /Level
& Implications (Education Field, State/National)	2. Have you adequately explained the possible implications of your study to national and state education standards? 3. Have you discussed any limitations and identified future research possibilities?	Implications may be disconnected from the findings or the data analyzed. Limitations not thoroughly discussed or lack detail.	1, 2 or 3.		
References and Appendix	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? 4. Are all references cited in the research report included in the references?	APA style not consistently followed for references and citations. Quality of references may be lacking. Reference list may be incomplete.	Missing significant components of 1, 2, 3 or 4.	Not included	
Organization	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	Report may lack professional language or organization in some areas. Report may have minor grammatical or style errors.	Report is disorganized, incomplete, unprofessional or contains significant grammatical/syntax errors throughout.	Not included	

Satisfactory Performance value: 5.00	Needs Revision value: 3.00	Insufficient value: 1.00	Unsatisfactor y Performance value: 0.00	Score /Level
	voice? Have you used professional language? (i.e., no jargon) Have you written in an accessible style and presentation?			

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). Professional Development Design and Self-Study Teacher Research Project (final copy),