GEORGE MASON UNIVERSITY COLLEGE OF EDUCATION AND HUMAN DEVELOPMENT GRADUATE SCHOOL OF EDUCATION

Mathematics Education Leadership

EDCI 702 DL2: Internship in Mathematics Education 3 Credits, Spring 2015 Mondays, 7:20-10:00/Thompson L018 (Face-to-Face & Online)

PROFESSOR:

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COURSE DESCRIPTION:

A. Prerequisites/Corequisites

This course should be taken within the last two semesters of the MEL program or with special permissions from the instructor.

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 January 19, 2015.

The delivery of this course combines discussion, independent study, student group presentations, writing, online meetings/assignments, and individual conferences. 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 <u>Patriot Computers</u>.
- 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 (National Council of Teachers of Mathematics (NCTM)):

This course is designed to meet the following *Standards for Elementary Mathematics Specialists* as outlined by the NCTM NCATE Standards (2012).

A. Standard 6: Professional Knowledge and Skills

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

B. Standard 7: Elementary Mathematics Specialist Field Experiences and Clinical Practice

- a. Engage in a sequence of planned field experiences and clinical practice under the supervision of an experienced and highly qualified mathematics educator 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 and the development of interpersonal skills critical for mentoring other teachers and working with school-based personnel, district administrators, and others.
- b. Develop and use leadership skills to improve mathematics programs at the school and/or district level, e.g., coaching/mentoring new and experienced teachers to better serve students; sharing critical issues, policy initiatives, and curriculum trends related to mathematics teaching; keeping abreast of local, state, or national policy decisions related to mathematics education; communicating to educational constituents about students, curriculum, instruction, and assessment; collaborating to create a shared vision and to develop an action plan for school improvement; and partnering with school-based professionals to improve each student's achievement.

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.

<u>Weekly Researcher Log:</u> 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 | Category Exemplary | | Developing | Undeveloped | |
| | 30 Points | 27-29 Points | 25-26 Points | Below 25 Points | |
| Attendance/ | Outstanding | Participates in | Doesn't | Few meaningful | |
| Participation | Participation; | discussions and | contribute to | contributions to | |
| Attendance and | participates | activities on a | discussions or | class discussions. | |
| participation are | regularly and | regular basis; | activities very | Little evidence of | |
| critical | actively in | questions and | often, but | participation and | |
| components of | discussions and | comments reveal | generally reveals | contribution from | |
| this course. It | activities. | thought and | some thought | assigned reading. | |
| gives you the | Promotes | reflection and | and reflection | Shows little | |
| opportunity to | conversation | contribution | and some | concern for | |
| learn from and | focused on the | from assigned | contribution | peers' learning or | |
| contribute to | topic. Comments | readings. | from assigned | input. Misses | |
| building a | demonstrate a | Frequently | readings. | classes and is late | |
| positive | high level of | involves peers in | Follows rather | for class. Does | |
| classroom | understanding and | discussion. | than leads group | not make up | |
| experience and | contribution from | | activities. | work. | |
| community. | assigned readings. | | Solicits some | | |

| Participants | Listens actively to | peer discussion. | |
|-----------------|---------------------|--------------------|--|
| contribute to | peers. Prompts | Misses classes. Is | |
| each others' | peer feedback and | late for class. | |
| learning in | input. | | |
| critical friend | | | |
| work by | | | |
| actively | | | |
| listening, | | | |
| exchanging | | | |
| ideas, sharing | | | |
| learning from | | | |
| reading and | | | |
| websites, and | | | |
| 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. <u>Session Plan (9 Points Possible):</u> 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. <u>Supplementary Materials (3 Points Possible):</u> Any handouts or other documents (e.g., articles) created for the teachers to take with them or takeaway from the session
- 3. <u>Reflection Paper (3-5 pages) (6 Points Possible):</u> 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. <u>Draft Literature Review (5 points for on-time submission see course schedule):</u> 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 on the last class. Your presentation must include a one-page handout that includes: your research question, rationale/purpose/data collection/resources and tools, findings, implications for math specialists and your your practice. You may use bullets, write sentences, incorporate images or charts, and add additional information as needed. Your handout should be created in a Power Point slide that measures 36 inches wide and 24 inches high. To do this click File, Page Set Up, and enter the dimensions. During our final class you will be sharing a handout with each of your classmates. To print a handout that is reasonably sized click Print and then check the box that says Scale To Fit Paper.

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.

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% | В | 80%-86% | F | Below 70% |

TASKSTREAM REQUIREMENTS

Every student registered for any Mathematics Education Leadership course with a required performance-based assessment 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. Inclass 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 Online = Collaborate
DB = Discussion Board/Individual Phone Conferences

| | Topic | Self-Study Project Timeline and Assignments Due | Professional Development Project Assignments Due |
|-------------------------|---|---|--|
| <u>Week 1</u> 1/19 | MLK Day | Start noticing your classroom. | |
| | No Class Meeting | Brainstorm possible research topics. | |
| <u>Week 2</u> 1/26 | Introduction To Course | Read: Preface, Chapters 1 & 2 | |
| <u>Interface</u> F2F | Overview of Self-Study Teacher Research Process and Project | SKIM Chapter 12 | |
| | In-Class CFI BLOG POST: CFI 1.1 (p. 5-6) | | |
| <u>Week 3</u> 2/2 | Research Question | BLACKBOARD DB POST: Please post a picture of an artifact (object) or provide | |
| Interface | Educational Databases | a hyperlink to help us learn a little about your | |
| Online | In-Class CFI BLOG POST: | research interests. The artifact is a tool to prompt your thinking about your research. Briefly explain | |
| | CFI 5.1 (p. 96-97) CFI 5.3 (p. 104-105) | your research interests and artifact. | |
| Week 4 2/9 | Research Design | Read: Chapters 5, 6 & 7 | BLACKBOARD DB POST: Topics and Goals for PD |
| Interface | In-Class CFI BLOG POST: | BLACKBOARD ASSIGNMENT POST: | Session |
| DB | CFI 4.1 (p. 82) Response to CF | Research Proposal | |
| <u>Week 5</u> 2/16 | Research Ethics | Read: Chapters 8 & 9 | BLACKBOARD ASSIGNMENT POST & |
| <u>Interface</u> | In-Class CFI BLOG POST: CFI 7.1 | | BRING: |
| F2F | CF Response | | Professional Development Session Plan (DRAFT) |
| <u>Week 6</u> 2/23 | Data Collection Class | Read: Chapters 10 & 11 | |
| | Workshop | CFI BLOG POST: | |
| Interface DB | | CFI 8.1 | |
| <u>Week 7</u> 3/2 | Data Analysis Class Workshop | Begin Data Collection | |
| Interface | · · · · · · · · · · · · · · · · · · · | BLACKBOARD ASSIGNMENT POST: | |
| Online | | Literature Draft Review Identify Specific Questions/Areas (As Needed) | |

| 3/9-3/15 | | Spring Break | |
|-------------------------|--|--|---|
| Week 8 | Validation Class Workshop | Continue Data Collection | |
| 3/16 Interface | | Begin Analyzing Data | |
| DB | | CFI BLOG POST: Data Collection Reflection | |
| Week 9 3/23 | Findings Class Workshop | Read Chapter 12 | TASKSTREAM POST & BRING: |
| Interface F2F | In-Class CFI BLOG POST: CFI 11.1 | Continue Data Collection | Final PD Session Plan |
| I ZI | CF Response | Continue Analyzing Data | Present PD before April 20 th if possible. Consult the instructor if you need to make adjustments. |
| Week 10 3/30 | Writing Class Workshop | Continue Data Collection | |
| Interface DB | In-Class CFI BLOG POST: CFI 11.2 CF Response | Continue Analyzing Data | |
| Week 11 4/6 | Critical Friend Workshop | Data Analysis | |
| Interface Online | In-Class CFI BLOG POST: CFI 11.3 | Summarize Findings | |
| | CF Response | Dialogue About Findings | |
| Week 12 4/13 | Discuss Paper Drafts | Research Paper Draft to CF | |
| <u>Interface</u> F2F | | BLACKBOARD ASSIGNMENT POST: Research Paper Draft to Instructor Identify Specific Questions/Areas (As Needed) | |
| Week 13 4/20 | Critical Friend Work | Feedback on Research Paper to CF | |
| <u>Interface</u> DB | | | |
| Week 14 4/27 | Check-In On Writing | Read Chapter 13 | TASKSTREAM POST: PD Project Reflection |
| <u>Interface</u> DB | | BLACKBOARD ASSIGNMENT POST: Abstract Draft | |
| Week 15 5/4 | Research Presentation | Bring Copies of Research Flyer | |
| Interface F2F | Exit Reflection on Professional Growth and Continued Goals | BLACKBOARD ASSIGNMENT POST: Research Flyer | |
| | | TASKSTREAM POST: Final Research Paper | |

Rubric for Professional Development Project

| | Satisfactory | Needs Revision | Unsatisfactory | Missing | Score/Level |
|--|--|---|---|------------------|-------------|
| | Value: 3.00 | Value: 2.00 | Value: 1.00 | Value: 0.00 | |
| Session Plan (Objectives & Activities) | Plan outlines the objectives for the session, details the activities the teachers will engage in during the session. Plan provides opportunities for interaction and discussion of the topics. | lack detail. Opportunities for interaction or discussion are insufficient, limited or | Significant components of 1 or 2 are missing. | Section missing. | |
| Session Plan (Detailed Writing) | 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) | 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) | Rationale for the topic is included. Why did you select this topic? 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) | What changes would you make to the session? (List at least 3.) 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. | 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)

| | Satisfactory Performance | Needs Revision | Insufficient | Unsatisfactory Performance | Score/Level |
|--|---|---|---|---|-------------|
| | value: 5.00 | value: 3.00 | value: 1.00 | value: 0.00 | |
| Abstract | Have you provided a single, articulate, concise paragraph of no more than 150 words Does your abstract concisely describe your purpose, context, method, key findings, and significance? | Abstract is sufficiently describes the purpose, context, methods, key findings and significance but may be too long or too short. | Missing responses to some items in questions 1 or 2. | No abstract included | |
| Rationale | 1. Have you clearly and concisely explained why this research is important to you? Have you offered perspectives that shaped this question for you? you provide a rationale for why this research is important to your students/teachers/participants? 3. Have you a ddressed the broader educational and social significance of this research? | Rationale may be concise but lacks some detail regarding self or students/teachers who are participants in the study. Descript broader educational significance is not addressed sufficiently for the study. | Missing responses to questions 1, 2 or 3 | No rationale included | |
| Research Problem/Questio ns | Have you clearly and concisely stated the research problem? Have you clearly and concisely stated your main research question and any sub questions? | Research problem may be unclear or unfocused. | Missing responses to items in questions 1 or 2. | No research problem or question description included. | |
| Review of the Literature | relevant and connected to your study? 3. Is the adequate, coherent, and | 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. | Missing responses to items 1, 2, 3 or 4. | Not included | |
| Conceptual Framework | 1. Is the review integrated into a conceptual framework with a mapping of the theories, literature, and phenomena that help to inform your study? | Conceptual framework is missing theory, literature or information about the phenomenon under investigation. Conceptual framework does not reflect the scope of the study. | Mapping is superficial or lacks details. | Not included | |
| Research Method (t/Participants) | Have you described your research context; community, school, and classroom context, and demographic information of participants? | Some minor details about context or participants are missing. | Missing significant details or information about the participants or context. | Not included | |
| Research Method (S e If -Study and Reflection) | Did you explain which self- study method you chose and why? Did you include your reflection of the problem? e.g., observations, possible causes? 3 | Reflection on the problem lacks detail regarding foundations of the study. Reflection may also lack information about connections between | Missing significant components of 1, 2 or 3. | Not included | |

| | the reasons for your pedagogies based on your noticing of your classroom and the literature reviewed? | pedagogies/interventions and the literature. | | |
|---|--|---|--|---------------|
| Research Method (D Collection) | 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? 2. [data include a variety of sources from multiple sources? 3. you include a timeline for the data you collected and your planned interventions? 4. you explain how you analyzed your data and include a complete data audit trail? 5. H included and explained the role of your critical friends in your data interpretations? explore using visuals and technologies for analyzing and displaying your findings in a coherent manner? | 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 data. | Missing significant components from 1, 2, 3, 4, 5, or 6. | Not included |
| Findings (F ntation) | 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? | 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. | Missing responses to items in questions 1 or 2. | Not included |
| Findings (Evidence & Support) | there connection and coherence | Themes are presented but lack sufficient evidence to support them. There is a lack of connection or explanation of coherence among the themes. | Missing significant components of 1, 2 or 3. | Not included |
| Discussion, Self- Study of Teaching & Implications aching & Learning, Local) | 1. Have you explained the possible implications to your students' learning? (explained the possible implications of to your understanding of teaching? Have you offered a self-assessment of how you addressed the self-study methodological components using the Five Foci chart? Have you discussed how you reshaped your practice from critical friend feedback? Does your discussion include evidence of your deep reflection and self-study of teaching? 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 | may be missing. Retrospective may lack detail or is superficial. Your actions in the self-study may not be reflected upon. | Missing significant components of 1, 2, 3, 4, 5 or 6. | Not included. |

presentation?

studying your teaching practice. Discussion, Self-1. Have you adequately Implications are not Missing significant Not included Study of explained the possible thoroughly or adequately components of 1, Teaching & implications to the education explained. Implications may 2 or 3. 2. be disconnected from the **Implications** field? ucation Field, explained the possible findings or the data analyzed. State/National) implications of your study to Limitations not thoroughly national and state education discussed or lack detail. standards? 3. Have discussed any limitations and identified future research possibilities? References and 1. Did you follow the APA style APA style not consistently Missing significant Not included Appendix for the report, references, followed for references and components of 1, citations, and appendix? 2 citations. Quality of 2, 3 or 4. references current and from references may be lacking. different and high quality Reference list may be 3 incomplete. sources? a complete list of all print and non-print (internet) 4. Are all references? references cited in the research report included in the references? Organization 1. Does the report include a Report may lack professional Report is Not included cover page, title, author's name language or organization in disorganized, incomplete, and professional affiliation? 2. some areas. Report may have unprofessional or Is your report well organized, minor grammatical or style grammatically correct, coherent contains errors. and complete? 3. D (significant report have your distinctive focus grammatical/style and voice? Have you used errors throughout. professional language? (i.e., no jargon) Have you written in an accessible style and