MSED 407: Research and Analysis in Teaching and Learning II: Analysis, Interpretation, and Dissemination

Spring, 2017

Thursdays, 6:00 – 9:00 PM, Annenberg 345

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Coaching Rooms

345 - Joseph Senese  G27 - Katie Hollerbach
347 - Gwen Faulkner  G22 - Martha Keller
342 - Melanie Woodward  317 - Margaret McMahon

SYLLABUS

OBJECTIVES AND OVERVIEW OF THE COURSE

The central goal of the master’s project sequence is to investigate your practice within the larger context of professional practice and existing knowledge. The course work is intended to support you through whole group activities and investigations that inform us about teacher research. The courses are also designed to afford each of you with a smaller research group and coach who provide more in-depth opportunities for discussion, analysis, feedback, and response as you continue your own project.

In the fall, you worked to identify and refine your master’s project question. You also learned about and used reading, discussion, interviews, and observations as a means of systematic inquiry. Ideally, this process provided you with methods of probing your own and others’ assumptions and beliefs about professional inquiry and the topic of your project; the process in MSED 406 should also have helped you to connect your question to the rich context of the existing literature on your topic.

MSED 407 is designed to help you complete your data collection, organize, analyze, and interpret your data, and compile your results into a final Master’s Project, specifically:

1) to understand the difference between data analysis and data interpretation;
2) to apply data analysis and interpretation skills (coding; various protocols for analysis of student work, video, and other artifacts; quantitative display; visual display; critical incidents, and other methods);
3) to understand the concept of triangulation and implement it within the context of the Master’s Project;
4) to gain experience in presenting and sharing action research;
5) to continue to place research projects in the larger context of practitioner inquiry and the world of education.
Note that each student’s project takes on its own ‘look,’ some relying more heavily on interviews and others on student work, for example. Some will have a number of graphic displays and others will have less quantifiable evidence. That said, however, an important goal of teacher action research is to learn something from *multiple* data sources. Therefore, we encourage you to use varied evidence and multiple sources to fully inform your question. Specifically, by the end of MSED 407, you should have at least three different types of data sources from among the following: (a) artifacts (e.g., student work, student test scores, mission statements, journals), (b) surveys, (c) interviews, (d) focus groups, (e) observations and/or video, and (f) case studies/critical incidences.

As in 406, coaching groups are a key component of this course. Your group and your coach serve as your collaborative response and feedback source throughout 407. The coaching group meets regularly during class times to discuss issues of action research and to provide feedback on writing, data collection, and data analysis/interpretation. Use your peers both in and outside of class to help you frame your research, make decisions, and interpret what you are finding along the way. Note that your coaching group and your coach are not your editors. You are expected to turn in well-written, error-free sections of your project.

**COURSE REQUIREMENTS**

1) Attend all classes, and for the duration of each class. If you must be absent for a family emergency or illness, please contact your coach as early as possible and make arrangements to complete additional work so that continuity in the course is preserved.
2) Complete all readings and written work on time—before the class for which they are assigned;
3) Bring the written work assigned for each class to the session. It must be word-processed and, at times, must be emailed to your coach. (Note: coaches will identify deadlines by which written work is to be submitted and in what format.)
4) Participate actively in class discussions to cultivate speaking and listening skills;
5) Prepare for discussions related to your question for the Master’s Project;
6) Final Master’s Project due Thursday, June 2.

**GRADING**

Course requirements are listed above. Serious, careful work submitted on time is necessary for success in this course. Those who attend all classes, submit all assigned work on time, and participate actively are candidates for A’s and B’s.

**STUDENT ATTENDANCE POLICY**

Student attendance at every class meeting is expected. Your presence as part of a collaborative learning community is key to your development and the development of your colleagues. If for some reason you must be absent from a class session, you must inform the instructor (and/or coach) before your absence. Because of the short number of overall class sessions in the quarter system, missing two class sessions puts your ability to pass the class in jeopardy. Missing three class sessions will result in an automatic grade of “Incomplete” and you will have to re-take the class at another time.
**CANVAS**
Canvas is a software package that we will make use of in the course. You are encouraged to visit the site often for announcements and information including all assignments. (NUCF 1.5)

**COURSE MATERIALS**

Internet Readings: the URLs of various readings are provided in this syllabus and on Canvas. These readings are in lieu of a course packet. Students are expected to read these selections and use the websites as they gather, analyze, and interpret data.

In addition, students are encouraged to review readings from 406 when listed.

**Library Resources**
Students should refer to Library Resources (from 406) on the NU Library website when appropriate (http://libguides.northwestern.edu/MSED406).

All written assignments should be processed in 12-point font, Times New Roman, 1” margin all around.

**Week 1: March 30, 2017**

**OBJECTIVES**
1) To gain an overview of the course.
2) To take stock of data already collected and consider data still needed to resolve the MPQ.
3) To discover the uses of critical incidences as data in research.
4) To consider critical incidences that might inform the MPQ.

IPTS 8C, 8F

**Week 2: April 6, 2017**

**OBJECTIVES**
1) To learn the importance of and the difference between research validity and reliability.
2) To participate in a Collaborative Assessment Conference OR a Slice Protocol to practice techniques for analyzing and interpreting student or teacher work.
3) To learn the preferred form for graphic representations.

**ASSIGNMENTS**
4) Do: Bring to class copies of student work that conform to the requirements of EITHER the Collaborative Assessment Conference Protocol OR the Slice Protocol. Apply the particular requirements for each protocol that was distributed in class during the fall term.
Be sure to carefully choose the work you bring in. Ideally this work should be related to your MP.

IPTS 3D, 3G, 5G, 5H, 7G, 7I, 8C, 8F

**Week 3: April 13, 2017**

**OBJECTIVES**
1) To apply the technique of coding to data from your MP.
2) To create a description of student work or a description of quantifiable data that includes a graphic representation.

**ASSIGNMENTS**
2) Read: George Mason University, Teacher Research, Data Analysis, [http://gse.gmu.edu/research/tr/tr-process/tr-analysis](http://gse.gmu.edu/research/tr/tr-process/tr-analysis)
   1) Do: Organize and bring to class a set of data that can be coded by you and/or your peers (transcript, scores, student work, journals, etc.). Ideally this data set should be related to your MP.
   2) Write: Bring 1-2 page description of student work OR 1-2-page description of quantifiable data related to your MPQ that includes some type of visual display, chart, or graph. Follow the guidelines on the handout: Graphic Representations.

IPTS 7C, 7D, 7E, 7G

**Week 4: April 20, 2017**

**OBJECTIVES**
1) To collaborate with peers to help analyze and interpret a data set.
2) To investigate ethical considerations when conducting action research including school permission, informed consent, anonymity, confidentiality, withdrawal from study, reciprocity, and risk.

**ASSIGNMENTS**
2) Do: Organize and bring to class a data set from your MP that can be analyzed by peers in about 20 minutes.
   1) Do: Consolidate and bring additional data to organize, analyze, and interpret with peers.

IPTS 2B, 2F, 7C, 9D

**Week 5: April 27, 2017**

**OBJECTIVES**
1) To write an analysis and interpretation of one data set.
2) To receive responses from peers to improve the analysis and interpretation of one data set.
3) To engage peer assistance to organize, analyze, and interpret additional data.
ASSIGNMENTS
2) Review: George Mason University, Teacher Research, Data Analysis, http://gse.gmu.edu/research/tr/tr-process/tr-analysis
3) Write: Bring a (hard) copy of the written analysis and interpretation of the first data set that you analyzed last week.
4) Do: Bring to class additional data that you can triangulate and begin to analyze and interpret with peers.

IPTS 3G, 5G, 7G, 7I, 8C, 8F

Week 6: May 4, 2017

OBJECTIVES
1) To investigate ways to synthesize the data sets into a cohesive section of the MP.
2) To capture and display the experience of the action research process up to this point.
3) To engage others in helping resolve your research question through a visual representation of your MP at this point.

ASSIGNMENTS
1) Do: Create a visual representation that synthesizes your research and demonstrates the current state of your MP. Your visual representation may include any questions, doubts, and ideas for which you would like responses. See the handout for specific directions.

IPTS 5G, 5H, 8B

Week 7: May 11, 2017

OBJECTIVES
1) To complete the analysis and interpretation section of the MP.
2) To collaborate with peers to improve the analysis and interpretation of the MP.
3) To learn the elements of a suitable conclusion for the MP.

ASSIGNMENTS
2) Write: Bring a hard copy of the entire analysis and interpretation section (15 - 20 pp.). This section must include at least two graphical representations of data: chart, graph, table, flow chart, concept map, etc. Be sure to consult Form of Graphics handout for preferred form of graphics.

IPTS 5G, 5H, 8B

Week 8: May 18, 2017

OBJECTIVES
1) To compose a conclusion for the MP that sufficiently addresses the elements of a conclusion.
2) To review the features of a successful presentation
3) To learn about diverse applications of action research in the world.
4) To gain an understanding of the uses of action research in practice.
5) To brainstorm ideas for individual presentations.

ASSIGNMENTS
2) Write: The conclusion of the MP.
3) Bring: Submit original signed school permission or edTPA form and/or consent forms.
4) Submit: By class time, complete the online form to provide your MPQ and your title. These will be used at graduation and for the upcoming presentations.

IPTS 7C, 7D, 7G, 9A, 9D

Week 9: May 25, 2017

OBJECTIVES
1) To present the results of your action research project to your coaching group.
2) To receive feedback about the presentation from your peers and your coach in order to improve it.
3) To participate in providing responses to peers’ presentations.

ASSIGNMENTS
1) Prepare: Create a ten-minute digital presentation of your action research to share with your coaching group and coach. Apply the guidelines presented last week in class. You will need to connect your own computer to the classroom projector.

IPTS 3G, 5G, 5H

Week 10: June 1, 2017

OBJECTIVES
1) To improve and enhance the MP presentation.
2) To share the process and results of your action research project with a wider audience.
3) To complete and compile the written Master’s Project.

ASSIGNMENTS
1) Revise: Use the feedback from your digital presentation last week to refine your presentation. Be prepared to answer questions about your MP from audience members.
2) Submit: Turn in a final copy of your Master’s Project to your coach (by coach’s choice of delivery method).
3) Upload: Submit the final copy of your Master’s Project to CANVAS no later than Thursday, June 2, 6:00 PM. Documents should be saved in .doc, .docx, or .pdf and uploaded in one file to Final Master’s Project under Assignments. You cannot upload multiple files; therefore, be sure to put all your documents into one file (e.g., the body of the MP and the appendices). Give your file a unique name beginning with your LAST NAME, FIRST INITIAL. FINAL MP (e.g., Sherin, M. Final MP).
NOTE: Presentations begin at 6:00 PM. Those presenting in the first session should arrive at their presentation room 15 minutes early to test the equipment in your presentation room. You will need to connect your own computer to the projector.

IPTS 3G, 5G, 5H
THE NORTHWESTERN UNIVERSITY CONCEPTUAL FRAMEWORK, TEACHING STANDARDS

As active participants in the field of education, our candidates will strive for improvement and innovation, based on inquiry that is grounded in reflection and research. The candidates will have

A Vision of Learning that focuses on:
1.1. understanding student thinking about the subject matter;
1.2. reflection and research as a means of learning;
1.3. learning as a social practice, which encourages collaborative learning in which people clarify doubts, examine beliefs and work together to address questions and concerns;
1.4. authentic experience, where class sessions and assignments are designed to engage students’ interests and to have implication for the student beyond the classroom; and
1.5. the use of technology to extend learning opportunities and thinking.

A Vision of Learners that focuses on:
2.1 lifelong learning and development shaped by social contexts; and
2.2 student diversity as a resource for the educational community.

A Vision of Teaching that focuses on:
3.1 connection of theory to practice, where the candidates understand that theories suggest questions and ideas about practice, and practice suggests modifications of theory; and
3.2 professional conduct that is responsible and ethical.

Dispositions (as implied by the NUCF):
1. Willingness to systematically reflect on one’s own practice. (NUCF 1.2, 3.1)
2. Commitment to understanding students’ thinking about the subject matter. (NUCF 1.1)
3. Belief in the value of seeing students as individuals. (NUCF 2.2)
4. Enthusiasm for learning and teaching through collaboration. (NUCF 1.3)
5. Willingness to take the risks associated with engaging students’ interests through real world experiences. (NUCF 1.4)
6. Energy for incorporating innovations in teaching, including the use of new technologies. (NUCF 1.5)
7. Commitment to conducting one’s self professionally and responsibly. (NUCF 3.2)

MSED 407 emphasizes several tenets of our Conceptual Framework, particularly: Diversity as a Resource (NUCF 2.2, Disp. 3); understanding student thinking about the subject matter (NUCF 1.1, Disp. 2); Authentic Experience (NUCF 1.4, Disp. 5); learning as a social practice (NUCF 1.3); connecting theory to practice (3.1). It also portrays teaching as grounded in reflective research (NUCF 1.2).

Each class session features discussion and dialogue. Individual perspective, history, and interests are drawn out in discussion and are indispensable to its success (Diversity as a Resource (NUCF 2.2; Disp.3) In focusing upon discussion and dialogue, the course places emphasis upon understanding student thinking about the subject matter (NUCF 1.1, Disp. 2). Students’ questions cultivated throughout the course are grounded in student interests. Most have implications for their development as educators. Thus, the course emphasizes Authentic Experience (NUCF 1.4, Disp. 5): The focus on questioning and discussion/dialogue helps students to understand learning as a social practice (NUCF 1.3). Discussions in relation to experiences in field settings helps students relate theory to practice (3.1). It also portrays teaching as grounded in reflective research (NUCF 1.2) Finally, use of Canvas helps use technology to extend student thinking (NUCF 1.5). In focusing upon these tenets of the NUCF, the course should help students to develop the dispositions implied by them.

The course also explicitly addresses several of the Illinois Professional Teaching Standards (IPTS).

Standard 1 - Teaching Diverse Students – The competent teacher understands the diverse characteristics and abilities of each student and how individuals develop and learn within the context of their social, economic, cultural, linguistic, and academic experiences. The teacher uses these experiences to create instructional opportunities that maximize student learning.

Standard 2 - Content Area and Pedagogical Knowledge The competent teacher has in-depth understanding of content area knowledge that includes central concepts, methods of inquiry, structures of the disciplines, and content area literacy. The teacher creates meaningful learning experiences for each student based upon interactions among content area and pedagogical knowledge, and evidence-based practice.

Standard 3 - Planning for Differentiated Instruction – The competent teacher plans and designs instruction based on content area knowledge, diverse student characteristics, student performance data, curriculum goals, and the community context. The teacher plans for ongoing student growth and achievement.
**Standard 4 - Learning Environment** – The competent teacher structures a safe and healthy learning environment that facilitates cultural and linguistic responsiveness, emotional well-being, self-efficacy, positive social interaction, mutual respect, active engagement, academic risk-taking, self-motivation, and personal goal-setting.

**Standard 5 - Instructional Delivery** – The competent teacher differentiates instruction by using a variety of strategies that support critical and creative thinking, problem-solving, and continuous growth and learning. This teacher understands that the classroom is a dynamic environment requiring ongoing modification of instruction to enhance learning for each student.

**Standard 6 - Reading, Writing, and Oral Communication** The competent teacher has foundational knowledge of reading, writing, and oral communication within the content area and recognizes and addresses student reading, writing, and oral communication needs to facilitate the acquisition of content knowledge.

**Standard 7 - Assessment** – The competent teacher understands and uses appropriate formative and summative assessments for determining student needs, monitoring student progress, measuring student growth, and evaluating student outcomes. The teacher makes decisions driven by data about curricular and instructional effectiveness and adjusts practices to meet the needs of each student.

**Standard 8 - Collaborative Relationships** – The competent teacher builds and maintains collaborative relationships to foster cognitive, linguistic, physical, and social and emotional development. This teacher works as a team member with professional colleagues, students, parents or guardians, and community members.

**Standard 9 - Professionalism, Leadership, and Advocacy** The competent teacher is an ethical and reflective practitioner who exhibits professionalism; provides leadership in the learning community; and advocates for students, parents or guardians, and the profession.

**Academic Integrity**

Students in this course are expected to comply with the policies found in the booklet, “Academic Integrity at Northwestern University: A Basic Guide.” All papers submitted for credit in this course must be sent as email attachments as well as delivered in printed form. Your written work may be electronically tested for plagiarized content. For details regarding academic integrity at Northwestern, visit: [http://www.northwestern.edu/uacc/](http://www.northwestern.edu/uacc/). If you need a copy of the brochure visit the SESP Student Affairs Office.

**Accommodations for Students**

Any student requesting accommodations must register with AccessibleNU. ([http://www.northwestern.edu/accessiblenu/](http://www.northwestern.edu/accessiblenu/); 847-467-5530) and request an accommodation notification for his/her professor, preferably within the first two weeks of class. All information will remain confidential.
Master’s Project Title (not the question – the title)

Your name
Master of Science in Education Program
Northwestern University
Graduation date – month and year
Master’s Project Outline
(approximately 25 - 30 pages maximum)

Upload a copy to Canvas by Thursday, June 1, 2017, 6:00 PM.

Documents should be saved in .doc, .docx, or .pdf and uploaded in one file to Final Master’s Project under Assignments. You cannot upload multiple files; therefore, be sure to put all your documents into one file (e.g., the body of the MP and the appendices). Give your file a unique name beginning with your LAST NAME, FIRST INITIAL. FINAL MP (e.g., Sherin, M. Final MP).

Introduction to the master’s project and research question (2 - 3 pages)
• Reason(s) why you choose to pursue this question for your research
• Importance of the resolution of this question

Data collection and ethics statement (4 pages)
• Overview of sources and description of school/informants
• Overview of methods/instruments used
• Ethical issues considered

Data analysis and interpretation (with at least two graphical representations) (20 pages)
• Analysis (describe and organize the data)
• Interpretation (explain the meaning of the data)
• Integration of data with the literature

Conclusion (3 - 4 pages)
• Resolution of the MPQ
• Lessons learned
• Limitations of the study

References

Appendices (optional)
• Data collection instruments
• Sample data

In short, the Master’s Project paper should answer the following questions:
• What did you do?
• Why did you do it?
• How did you do it?
• What did you learn?