Course Overview:
This course is the third in the sequence of research courses in the MSED program designed to focus on the analysis and interpretation of data collected for the Master’s Project. Participants prepare an analysis and interpretation leading to conclusions, implications, and recommendations related to their Master’s Project question. Projects are presented to a peer audience for discussion.

Note that throughout this course you are asked to bring copies of parts of the Master’s Project for group feedback and helpful response. The success of this course and of the Master’s Project process depends on your preparation of these sections and your readiness to “use the group” to gain and give feedback.

Course Goals:
• to understand the difference between data description, data analysis, and data interpretation;
• to advance data analysis and interpretation skills (use of coding; use of various protocols for analysis of student work, video, and other artifacts; quantitative display; visual display; critical incidents, and other methods);
• to understand the concept of triangulation and implement it within the context of the Master’s Project;
• to gain experience in presenting and sharing action research;
• to continue to place research projects in the larger context of practitioner inquiry and the world of education.

Readings:


Research Groups:
As in 407, research groups are a key component of this course. Your group and your coach serve as your collaborative response and feedback source. The research group meets regularly during class times to discuss issues of action research and to provide feedback on writing, data collection, and data analysis and interpretation. Use the group 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 research group and your coach are not your editors. You are expected to turn in well-written, error-free sections of your project.
Weekly Schedule

June 19  Analysis and Interpretation: Part I
• Review distinction between data analysis and interpretation
• Examine data sets
• Develop a personalized plan for data analysis and interpretation
• Synthesize results with literature

Research Groups:  Work on developing personalized plans of data analysis and interpretation

IPTS 9, 10; CF 1.2, 2.1; Disp 1; Tech 5

June 26  Analysis and Interpretation: Part II
• Examine data sets
• Writing up action research
• Validity and reliability

Research Groups:  Peer responses to analysis and interpretation of one data set

Reading:  Mertler, pp. 144-145 and 241-258

George Mason University
http://gse.gmu.edu/research/tr/tr_process/tr_analysis/

Assignment:  Analysis and interpretation of one data set. Refer to Mertler and George Mason University website for data analysis techniques. (Bring a hard copy to class.)

IPTS 9, 10; CF 1.2, 2.1, 3.1; Disp 1; Tech 5

July 3  Analysis and Interpretation Section Due  (No Class)

Assignment:
Analysis and interpretation section (15 - 20 pp.) emailed to coach by 5:00 PM. 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 provided in 407 for preferred form.

IPTS 9, 10; CF 1.2, 2.1, Disp 1; LAS 1,3
July 10        Action Planning and Conclusion
• Implications of your research
• The nature of interpretation in qualitative research

Reading:        Mertler, pp. 203-215
Peshkin, A. The nature of interpretation in qualitative research. Educational Researcher, 29(9), 5-9. (handout)

Assignment: Bring a hard copy to class of the following sections of updated/revised Master’s Project (refer to MP outline for more detail):
• Rationale for project and research question development
• Data collection

July 17        Final Steps
• Presenting your research
• Formatting your Master’s Project
• Action research in practice

Reading:        Mertler, pp. 217-239

Assignment: Conclusion section (5-7 pp.) (Bring a hard copy to class.)
Original school permission form and consent forms stapled and turned in to coach.

July 24        Master’s Project Presentations

Note: Class begins promptly at 4:00 PM in Annenberg 303.

Assignment: One unbound final copy of Master’s Project to coach (by coach’s choice).

Submit a final ELECTRONIC copy of your Master’s Project (ONLY after your coach gives approval) to BLACKBOARD no later than Wednesday, August 1. Documents should be submitted as pdf files by uploading files to Final Master’s Project under Assignments. You can upload multiple files, but they must all be uploaded at the same time (e.g., pdf of the body of the MP and then the appendices). Give your file a unique name beginning with your LAST NAME, FIRST INITIAL.

IPTS 7, 9, 10, 11; CF 1.2, 1.3, 2.1, 3.1, 3.2 Disp 1, 6; TECH 1,2

Grades:
It is expected that participants will complete all readings and assignments and attend all research group and whole group meetings. Assuming satisfactory attendance, preparation, and participation, grades are determined based upon the course products due throughout the quarter.
Course Goals:
Course objectives are consistent with the Conceptual Framework of the Teacher Education unit at Northwestern University (http://www.sesp.northwestern.edu/Programs/MS/ConcepFra.html). The course also explicitly addresses several of the Illinois Professional Teaching Standards (IPTS). The master’s project is ideal to include in elementary and secondary teacher candidates’ professional portfolios.

1) To examine and learn to use various methods appropriate to practitioner inquiry (IPTS #10);
2) To examine existing theory and collect evidence to help answer genuine questions that arise with our own professional practices (CF 1c, 3a);
3) To understand that inquiry must take into account the specific social contexts within which those questions arise (CF 2a);
4) To make explicit the assumptions, beliefs, and motivations we bring to our work and to reflect upon them through a rigorous examination of the evidence (IPTS #5, CF 1a, 1b);
5) To use a variety of learning strategies to enhance our critical thinking, problem-solving and performance skills (IPTS #6);
6) To refine our written, verbal, nonverbal, and visual communication skills to enhance our capacity for shared inquiry and joint problem-solving (IPTS #7);
7) To continue to develop a collaborative learning community (IPTS #3, CF 2b);
8) To practice systematic reflection and research to improve professional practice (IPTS #10, CF 1c, 3b).

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/. If you need a copy of the brochure visit the SESP Student Affairs Office.

Accommodations for Students with Disabilities:
In compliance with Section 504 of the 1973 Rehabilitation Act and the Americans with Disabilities Act, Northwestern University is committed to providing equal access to all programming. Students with disabilities seeking accommodations are encouraged to contact the office of Services for Students with Disabilities (SSD) at 467-5530 or ssd@northwestern.edu. SSD is located in the basement of Scott Hall. SSD also has an excellent web-site which is viewable at: http://www.stuaff.northwestern.edu/ssd/.

Northwestern University Conceptual Framework:
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)

Illinois Professional Teaching Standards:  
#1 Content Knowledge  
The competent teacher understands the central concepts, methods of inquiry, and structures of the disciplines and creates learning experiences that make the content meaningful to all students.  

#2 Human Development and Learning  
The competent teacher understands how individuals grow, develop, and learn and provides learning instructional opportunities that support the intellectual, social, and personal development of all students.  

#3 Diversity  
The competent teacher understands how students differ in their approaches to learning and creates instructional opportunities that are adapted to diverse learners.  

#4 Planning for Instruction  
The competent teacher understands instructional planning and designs instruction based upon knowledge of the discipline, students, the community and curriculum goals.  

#5 Learning Environment  
The competent teacher uses an understanding of individual and group motivation and behavior to create a learning environment that encourages positive social interaction, active engagement in learning, and self-motivation.  

#6 Instructional Delivery  
The competent teacher understands and uses a variety of instructional strategies to encourage students' development of critical thinking, problem-solving, and performance skills.  

#7 Communication
The competent teacher uses knowledge of effective written, verbal, non-verbal, and visual communication techniques to foster active inquiry, collaboration, and supportive interaction.

**#8 Assessment**
The competent teacher understands various formal and informal assessment strategies and uses them to support the continuous development of all students.

**#9 Collaborative Relationships**
The competent teacher understands the role of the community in educational development and maintains collaborative relationships with colleagues, parents/guardians, and the community to support student learning and well-being.

**#10 Reflection and Professional Growth**
The competent teacher is a reflective practitioner who continually evaluates how choices and actions affect students, parents, and other professionals in the learning community and actively seeks opportunities to grow professionally.

**#11 Professional Conduct**
The competent teacher understands education as a profession, maintains standards of professional conduct, and provides leadership to improve students' learning and well-being.
Master’s Project Outline

Title page

Table of contents (one for text; one for figures; one for tables)

Rationale for the project and research question development
  • Why it is important to resolve the question, given the research and the state of our understanding; why each sub-question, if resolved, should have implication for resolution of the research question;
  • How the questions and sub-questions are researchable, i.e., within the locus of your control to address;
  • Why you feel passionate about resolving the Master’s Project cluster of questions;
  • How the MPQ and your thinking about your topic developed/evolved;
  • Why you believe that pursuing its resolution will help you to improve your practice;
  • What assumptions or biases you have about this question as you enter the research process.

Review of the Literature

Data collection
  • Sources and description of school/informants
  • Methods/instruments used
  • Consents secured (NOT the actual consent forms)
  • Ethics considered

Data analysis and interpretation (with at least TWO graphical representations)
  • Analysis (describe the data)
  • Interpretation (explain the meaning of the data)
  • Integration of results and the literature

Conclusions
  • Implications of the research project for the field
  • Lessons learned
  • New models or interventions suggested by the research
  • Limitations of the study
  • Changes to consider for next time
  • Next steps/suggestions for future research/new questions

References

Appendices
  • Data collection instruments
  • Sample data
Master’s Project Title (not the question – the title)

Your name
Master of Science in Education Program
Northwestern University
Graduation date – month and year