INTRODUCING MIXED METHODS IN COURSES ON RESEARCH DESIGN

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IIQM-MMIRA Joint Webinar Series – June 2018

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OBJECTIVES

- Identify the (recent) trends in the scholarship of teaching and learning mixed methods research
- Discuss my specific contexts for teaching mixed methods
- Describe my process for course design and planning
- Distinguish between key introductory topics and those appropriate for future mixed methods coursework
- Identify key considerations when selecting reading materials
- Describe scalable activities and assignments for learning about mixed methods
- List the key references for future learning
Why propose this topic?

Number of Publications Addressing the Teaching and Learning of Mixed Methods Research

<table>
<thead>
<tr>
<th>Period</th>
<th>Publications</th>
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<tbody>
<tr>
<td>2000-2005</td>
<td>4</td>
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<tr>
<td>2006-2010</td>
<td>10</td>
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<tr>
<td>2011-2015</td>
<td>11</td>
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<td>2016-2018</td>
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Much of the research on teaching and learning mixed methods research focuses on courses solely devoted to mixed methods (e.g., Earley, 2007). Additionally, students often share that they wished they had learned more about mixed methods earlier in their careers (e.g., Poth, 2014).
TYPICAL TOPICS

- More focus on design than implementing a research study
- Research ethics, research process
- Qualitative / Quantitative research
  - Priority dependent on skills, training of instructor (Onwuegbuzie & Leech, 2005)
- Applied research design skills
  - Identifying research problem
  - Posing research questions/hypotheses
  - Identifying data collection and analysis procedures

WHO IS IN THE CLASS

- Graduate/Postgraduate level
- Prerequisite for advanced research courses
- Varying levels of pre-existing knowledge, skills, experience with research methods (Poth, 2014)
- Current or future practitioners (e.g., teachers, counselors, organizational leaders)
- Consider training, experience of instructor (Onwuegbuzie & Leech, 2005)
ADDING MIXED METHODS RESEARCH

- Increasing recognition in many social and behavioral sciences fields
- Students identify need for this kind of introduction after solo mixed methods courses (Poth, 2014)
- Aligns well with students’ pre-existing understandings of quality research that it uses multiple methodological approaches
- Makes the case for more MMR specific courses

INTEGRATING MIXED METHODS INTO INTRODUCTORY COURSES ON RESEARCH DESIGN

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CONTEXT AND EXPERIENCE

Fully online introduction to educational research course
• Primarily master’s level
• Education, counseling, psychology, engineering management
• Listed as a prerequisite for future doctoral research courses
• Teaching-focused doctoral granting university

First of two-part sequence on mixed methods research
• Face-to-face
• Doctoral level
• Prerequisites: one qualitative course and one quantitative course
• Research intensive university

DESIGNING THE CLASS

Understanding by Design (Wiggins & McTighe, 2005)
• Focus on overall goals
• Identify: a) learning goals, b) evidence, and then c) learning activities

Integrated Course Design (Fink, 2003)
• Consider contextual factors
• Develop processes to assess student learning
• Identify mechanisms for student feedback
EDUR 7130: EDUCATIONAL RESEARCH
### Course-Level Objectives

- **#2: Define the central concepts, terms, and tools of inquiry in educational research**
- **#3: Articulate the rationales for using particular research designs, tools, and techniques**

### Module Level Objectives – Mixed Methods

<table>
<thead>
<tr>
<th>Course-Level Objectives</th>
<th>Module Level Objectives – Mixed Methods</th>
<th>Activity/Assessment</th>
</tr>
</thead>
<tbody>
<tr>
<td>#2: Define the central concepts, terms, and tools of inquiry in educational research</td>
<td>Identify the basic assumptions of mixed methods research</td>
<td>Questions during video lecture Exam</td>
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<tr>
<td></td>
<td>Distinguish between “mixed methods” and “multimethods” research</td>
<td>Questions during video lecture Exam</td>
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<td></td>
<td>Describe the types of mixed methods designs based on how they mix</td>
<td>Module Activity Exam</td>
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<tr>
<td></td>
<td>Identify the components of a mixed methods research cycle</td>
<td>Questions during video lecture Exam</td>
</tr>
<tr>
<td>#3: Articulate the rationales for using particular research designs, tools, and techniques</td>
<td>Identify why researchers choose to use a mixed methods methodology</td>
<td>Module Activity MMR Design Statement</td>
</tr>
<tr>
<td></td>
<td>Defend a mixed methods design that you would apply to your mock research topic</td>
<td>Module Activity MMR Design Statement</td>
</tr>
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### Qualitative Research Flowchart

- Qualitative Research
- Arts-Based Research
- Action Research
- Mixed Methods Research
- Quantitative Research
WHAT TO STRESS

- Distinguish between "mixed methods" and "multimethods" research;
- Identify the basic assumptions of mixed methods research;
- Identify why researchers choose to use a mixed methods methodology;
- Describe the types of mixed methods designs based on how they mix;
- Identify the components of a mixed methods research cycle; and
- Discuss a mixed methods design that you would apply to your mock research topic.

SELECTING RESOURCES

**Current text**

**Supplements**

- MMR-oriented reading
- Recently published empirical MMR study with explicit discussion of methods
- Author guest video lecture on the study
SAVE FOR FUTURE LEARNING

Various typologies – definitions and terms, rationales, designs (c.f. Early, 2007; Ivankova, 2010)

In-depth mapping of the field of mixed methods (Ivankova, 2010)

Give students resources for their own learning

ACTIVITIES AND ASSESSMENTS
Module Activities (9*2pts=18pts)
Most weekly modules consist of multi-modal activities designed for you to engage in the content using higher order thinking skills. Example activities include writing reflective journals, participating in group discussions, creating visuals, posting to Twitter, etc. The mode and method of submission is described in the module along with grading criteria.

Mock Research Project (5*10pts=50pts)
This cumulative project assesses your knowledge and emergent skills in designing a research project. It includes 4 statements: research ethics, a qualitative design, a quantitative design, and a design of your choice (either mixed methods, arts-based, or action research). Each will be evaluated as the term progresses. You will compile these and reflect on them in a final statement submitted at the end of the term.

Exams (10+10+12=32pts)
Three timed exams will assess your general comprehension. Questions are in multiple choice, fill-in-the-blank, and true/false formats. These exams will be hosted in our Folio page. We will have live Q&A review sessions before each exam.

INTERACTIVE VIDEO LECTURE

Model how to read empirical mixed methods studies
Demonstrate identifying design components for own research topic
Self-assess while answering questions posed during the lecture

Criteria to Consider in MMR (Arksey et al., 2007)

1. What is mixed during the process?
2. When does the mixing occur?
3. What is within the realm of “mixed” methods research?
4. Why is the mixing important?
5. How does one’s paradigm influence the inquiry (e.g. “top-down” versus “bottom-up”)?
SMALL GROUP DISCUSSIONS

- Applicability to their interests
  - Select a design

- Intentional grouping
  - By topic v. design type

- Facilitate peer-to-peer discussion
  - Pose questions

MOCK RESEARCH PROJECT

Select a topic, and write:

- Research problem
- Ethics statement
- Qualitative design
- Quantitative design
- Design of choice: ABR, AR or MMR
- Final reflection

Course-level objectives:

- Articulate the rationale for using particular research designs, tools, and techniques

Practice basic research skills:
- Select and define a problem
- Construct hypotheses or research questions
- Select an appropriate research design
- Determine appropriate sampling technique(s)
- Select/Develop data collection instruments
- Identify appropriate data analysis techniques
- Engage in reflective research practice
Apply a mixed methods design to a topic of interest (c.f. Christ, 2009)

Demonstrate learning about assumptions, characteristics, and designs for mixed methods

Low-bar, check-wise rubric

Feedback: strengths, implementing in future, writing

MRP MIXED METHODS DESIGN STATEMENT

<table>
<thead>
<tr>
<th>Category</th>
<th>Benchmark Description</th>
<th>Score</th>
</tr>
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<tbody>
<tr>
<td>Mixed Methods Research</td>
<td>You identify rationale for using mixed methods research as your methodology for the study. You based this elaboration on your research problem/problem of practice.</td>
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<td>You list research questions that would drive each strand including an overall mixed methods research question.</td>
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<td>You identify an overall mixed methods research design you would use in your mock study. You elaborate why you chose this design.</td>
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<tr>
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<td>You describe a plan for integration that addresses what strategy/strategies you would use. You elaborate why you chose those strategies.</td>
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<td></td>
<td><strong>BONUS</strong>: You include a research diagram as a figure detailing your research design. Your diagram includes details from the above sections.</td>
<td>Bonus</td>
</tr>
<tr>
<td>Presentation Quality</td>
<td>Your statement: a) cites course materials (e.g. textbook, lecture references) in APA style, b) has limited or no grammatical or typing errors, and c) is within the word limit.</td>
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FUTURE ITERATIONS

Self-directed
- Choose your own module: Arts-Based, Action, or Mixed Methods

Greater depth
- 3 weeks on methodology of choice
- More discussion on designs, integration

Multimodal
- Discussion boards and Twitter posts
- Required research diagram

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DISCUSSION

- Critique of my approach: replace qualitative/quantitative designators and mono-methods courses with mixed methods courses (c.f. Niglas, 2007; Onwuebuzie & Leech, 2005)
- More MMR courses → more nuances to teaching and learning
- Consider the context – students, program, institution, learning goals, etc.
  - Craft appropriate, scalable activities and assessments
  - Identify what to cut, keep
- Importance of multi-modal learning and assessment

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REFERENCES


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THANK YOU! QUESTIONS?

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