

**C780
Mixed Methods Research
Summer 2023 Course Outline**

**Health Policy & Management
DeGroote School of Business
McMaster University**

COURSE OBJECTIVE & DESCRIPTION

Mixed methods research is becoming an important methodology to investigate complex topics. By gathering both quantitative and qualitative data and integrating the two, mixed methods research aims to leverage strengths of both types of data. The objective of this course is to equip students with the knowledge and skills necessary to design, conduct, evaluate, and report mixed methods research. We will explore philosophical, epistemological, and methodological debates in the use of mixed methods research, specifically in the healthcare context. Students will have the opportunity to design a mixed methods proposal that pertains to their own research interests. Student must have prior coursework or experience with quantitative and qualitative research to take this course.

INSTRUCTOR AND CONTACT INFORMATION

Dr. Gillian Mulvale
Associate Professor Health Policy and Management
DeGroote School of Business
RJC 421
289 983 0741
mulvale@mcmaster.ca
Office Hours: Tuesday 1:00 – 2:00 pm

LEARNING OUTCOMES

Upon completion of this course, students will be able to:

1. Describe the history and current state of mixed methods research
2. Develop and defend rigorous mixed methods research designs
3. Evaluate the quality of mixed methods research studies

COURSE LOGISTICS

This course is taught every **Thursday 8:30am-11:00 pm in person on the main campus at DSB321**. Course materials are provided on the Avenue to Learn course website at <http://avenue.mcmaster.ca>. Students should use their official McMaster University email account to correspond with instructors.

REQUIRED COURSE MATERIALS AND READINGS

- Creswell J & Plano Clark V (2018) *Designing and conducting mixed methods research* – **3rd edition**. Thousand Oaks, CA: Sage. (abbreviated as “Creswell & Clark Mixed Methods” below)
 - *Please note that the 3^d edition is significantly different from previous editions*
 - Creswell JW (2009) *Research Design: Qualitative, Quantitative, and Mixed Methods Approaches*. Thousand Oaks: Sage. (abbreviated as “Creswell Research Design” below)
 - *Please note that only 3 chapters of this text are required reading*
 - Additional readings are listed below and provided on the Avenue to Learn course website.
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EVALUATION

Components and Weights

Class Participation	20%	Throughout
Mixed Methods Paper Analysis	15%	May 25
Outline of Research Proposal	15%	June 1
Research Proposal – Presentation	10%	July 6
Peer Review of Classmate’s Research Proposal	5%	July 6
Research Proposal – Written	35%	July 13
	100%	

Grade Scale

All assignments will receive a letter grade. Final grades will be calculated using the median numerical score for each letter grade.

LETTER GRADE	PERCENT
A+	90-100
A	85-89
A-	80-84
B+	77-79
B	73-76
B-	70-72
F	00-69

OVERVIEW OF COURSE

Date	Topic	Instructor	Assignments			
			Mixed Methods Paper Analysis (15%)	Outline of Research Proposal (15%)	Research Proposal – Presentation & Peer Review (10% & 5%)	Research Proposal – Written (35%)
May 4	Introduction to Mixed Methods Research and Philosophical Foundations	Gillian				
May 11	Designing Studies Part 1 and The Role of Theory	Gillian				
May 18	Designing Studies Part 2	Gillian				
May 25	Generating Research Questions	Gillian	X Proposal topic due			
June 1	Sampling & Collecting Data	Gillian				
June 8	Student Proposal Outlines Due	N/A		X		
June 15	Analyzing & Integrating Data	Gillian				
June 22	Assessing Quality & Conducting Peer Reviews	Gillian				
June 29	Writing & Publishing	Jane Mills (TBC)				
July 6	Student presentations on research proposals and peer review feedback	All			X	
July 13	No Class – Final research proposal due	N/A				X

REQUIRED READINGS

Week 1: Introduction to Mixed Methods Research and Philosophical Foundations

- Creswell Research Design, Chapters 1, 8, & 9
- Creswell & Clark Mixed Methods, Chapter 1 & 2
- O’Cathain, A. (2009). Editorial: Mixed Methods Research in the Health Sciences: A Quiet Revolution. *Journal of Mixed Methods Research*, 3(1), 3–6.
<https://doi.org/10.1177/1558689808326272>

Week 2: Designing Studies in Mixed Methods Research Part 1 + The Role of Theory

- Creswell & Clark Mixed Methods, Chapter 3
- For the small group activity on the role of theory, please review the following papers:
 - Legare, F., Stacey, D., Briere, N., et al. (2013). Healthcare providers' intentions to engage in an interprofessional approach to shared decision-making in home care programs: A mixed methods study. *Journal of Interprofessional Care*, 27(3), 214-222.
 - Gabitova, G. and Burke, N.J. (2014). Improving healthcare empowerment through breast cancer patient navigation: A mixed methods evaluation in a safety-net setting. *BMC Health Services Research*, 14, 407.
 - Elwyn, G., Barr, P.J., Grande, S.W. (2015). Patients recording clinical encounters: A path to empowerment? Assessment by mixed methods. *BMJ Open*, 5:e008566.

Week 3: Designing Studies in Mixed Methods Research Part 2

- Creswell & Clark Mixed Methods, Chapter 4
- For the small group activity, please review materials posted on A2L on the following four studies:
 - Caroline Families First Evaluation
 - Process Evaluation of the CORE Study
 - Implementation of MyEXP Study
 - “You Deserve Better” Domestic Abuse Study

Week 4: Generating Research Questions in Mixed Methods Research

- Creswell & Clark Mixed Methods, Chapter 5
- Thabane, L., Thomas, T., Ye, C., & Paul, J. (2009). Posing the research question: not so simple. *Canadian Journal of Anesthesia*, 56(1), 71. <https://doi.org/10.1007/s12630-008-9007-4>
- University Campus Suffolk. (n.d.). Using PICO & PEO: Developing your research question and search strategy. University Campus Suffolk.
- For the small group activity, see template posted on A2L and materials from last week.

Week 5: Sampling & Collecting Data in Mixed Methods Research

- Creswell & Clark Mixed Methods, Chapter 6

- Optional: Revisit Creswell Research Design Chapters 8 & 9 (from week one)
- For reference if needed:
 - McCrum-Gardner E. (2010). Sample size and power calculations made simple. *International Journal of Therapy & Rehabilitation*, 17(1), 10–14. <https://doi.org/10.12968/ijtr.2010.17.1.45988>
 - Sandelowski, M. (1995). Sample size in qualitative research. *Research in Nursing & Health*, 18(2), 179–183. <https://doi.org/10.1002/nur.4770180211>
- For small group activity, please review the scenarios and discussion questions posted on A2L.

Week 6: Proposal Outlines Due on Avenue to Learn – No Class

Week 7: Analyzing & Integrating Data in Mixed Methods Research

- Creswell & Clark Mixed Methods, Chapter 7 (not including section on validity pages 249-253)
- Fetters, M. D., Curry, L. A., & Creswell, J. W. (2013). Achieving integration in mixed methods designs: Principles and practices. *Health Services Research*, 48(6), Part II. <https://www.ncbi.nlm.nih.gov/pmc/articles/PMC4097839/>
- Guetterman, T. C., Fetters, M. D., & Creswell, J. W. (2015). Integrating Quantitative and Qualitative Results in Health Science Mixed Methods Research Through Joint Displays. *Annals of Family Medicine*, 13(6), 554–561. <https://doi.org/10.1370/afm.1865>
- de Haan, M., van Eijk-Hustings, Y., and Vrijhoef, H.J.M. (2021). Using mixed methods in health services research: A review of the literature and case study. *Journal of Health Services Research & Policy*, 26(2), 141-147.
- For the small group activity, please review the data document posted on A2L.

Week 8: Assessing Quality in Mixed Methods Research & Conducting Peer Reviews

- Creswell & Clark Mixed Methods, Chapter 7 pages 249-253, Chapter 8 pages 278-285
- Fabregues, S., Molina-Azorin, J. (2017). Addressing quality in mixed methods research: A review and recommendations for a future agenda. *Quality & Quantity*, 51(6), 2847-2863.
- Mixed Methods Appraisal Tool (MMAT) Version 2018 User Guide: http://mixedmethodsappraisaltoolpublic.pbworks.com/w/file/fetch/127916259/MMAT_2018_criteria-manual_2018-08-01_ENG.pdf
- For the small group activity, please review the following two papers:
 - McCrudden and McTigue (2019). Implementing Integration in an Explanatory Sequential Mixed Methods Study of Belief Bias About Climate Change with High School Students. *Journal of Mixed Methods Research*, 13(3), 381–400.
 - Taghipoorreynh and de Run (2020). Using Mixed Methods Research as a Tool for Developing an Indigenous Cultural Values Instrument in Malaysia. *Journal of Mixed Methods Research*, 14(3), 403–424.

Week 9: Writing & Publishing Mixed Methods Research

- Creswell & Clark Mixed Methods, Chapter 8, pages 259-278
- Leech, N. L., Onwuegbuzie, A. J., & Combs, J. P. (2011). Writing publishable mixed research articles: Guidelines for emerging scholars in the health sciences and beyond. *International Journal of Multiple Research Approaches*, 5(1), 7–24. <https://doi.org/10.5172/mra.2011.5.1.7>

- Creswell, J.W. and Tashakkori, A. (2007). Developing publishable mixed methods manuscripts. *Journal of Mixed Methods Research* 1(2), 107-111.
- For the small group activity, please review the “Responding to Reviewer Comments” document on A2L.

Week 10: Student Presentations and Peer Review Feedback

Week 11: NO CLASS – Written Research Proposal Due

ASSIGNMENT DESCRIPTIONS

All written assignments should be single spaced, 12-point font, 1-inch margins, use APA format, and be submitted on *Avenue to Learn* by **start of class** on the due date. No extensions are available except under exceptional circumstances. Please discuss any extenuating situation with the instructors at the earliest opportunity.

CLASS PARTICIPATION (20%)

Since this is a graduate course using a seminar-style structure, active participation each week is expected and will be assessed on quality of participation. You are expected to do the assigned readings and come prepared to discuss. Each week please be prepared to:

- discuss your key takeaways/lessons learned from the required reading;
- ask questions that help everyone understand, reflect on, and apply the main points of the readings; and
- actively engage in the small group activity.

You are also expected to continue to advance your work toward the final assignment each week, to share your progress with the class, and to offer constructive feedback to peers.

Students are expected to attend all classes and to participate in the entire class. Students will be granted permission to miss one class with advanced notice to the instructors and instructor approval without losing participation marks assuming all required activities are submitted for that week on time.

MIXED METHODS PAPER ANALYSIS (15%)

You will choose a published study that utilizes mixed methods from the selection of options below and prepare a 2-page analysis of the study.

Please choose one of the following papers to conduct your analysis on:

- Leedham-Green et al. (2020). Success and limiting factors in health service innovation: A theory-generating mixed methods evaluation of UK projects. *BMJ Open* 11:e047943.
- Song et al. (2017). Team dynamics, clinical work satisfaction, and patient care coordination between primary care providers: A mixed methods study. *Health Care Management Review* 42(1): 28-41.
- Fields et al. (2021). Utilizing the Senior Companion Program as a platform for a culturally informed caregiver intervention: Results from a mixed methods pilot study. *Dementia* 20(1): 161-187.

- Wherton et al. (2021). Expanding video consultation services at pace and scale in Scotland during the COVID_19 pandemic: National mixed methods case study. *Journal of Medical Internet Research* 23(10):e31374.
- Shiyabola et al. (2021). Using an exploratory sequential mixed methods design to adapt an Illness Perception Questionnaire for African Americans with diabetes: The mixed data integration process. *Health Psychology and Behavioral Medicine* 9(1).

Marking Grid for Mixed Methods Paper Analysis (15%):

Dimension	Details	Score
Philosophical foundation (paradigm)	<ul style="list-style-type: none"> • Identify and explain the philosophical foundation of the study based on available information • Comment on the extent to which the authors were clear and explicit about their philosophical foundation 	/4
Theory	<ul style="list-style-type: none"> • Identify the theory(ies) used in the study • Explain how theory was used (e.g., inductively, deductively, placement in the paper) • Comment on the extent to which the authors were clear and explicit about the theory(ies) that informed their work 	/4
Design	<ul style="list-style-type: none"> • Identify and explain the mixed methods design used and its appropriateness for the study purpose • Explain how quantitative and qualitative data were integrated • Comment on the extent to which the authors were clear and explicit about their mixed methods design 	/4
Reflections	<ul style="list-style-type: none"> • Describe your takeaways/lessons learned from analyzing the mixed methods study and how you will apply them to your research proposal 	/2
Writing Style	<ul style="list-style-type: none"> • Written in prose (not bullet point) format • Presents study in clear, organized, and coherent fashion • Uses APA referencing 	/1
Total		/15

MIXED METHODS RESEARCH PROPOSAL

You will design a mixed methods research study proposal on a healthcare-related topic of your choice. Final approval of your topic by an instructor is required (by May 25th) before proceeding with development of your full proposal. There are two assignments associated with the development of this proposal, outlined below.

1. Outline of Research Proposal (10%)

You will prepare a 2-page written outline of your mixed methods research proposal (10%).

Marking Grid for Written Outline (10%):

Dimension	Details	Score
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Introduction • Purpose Statement • Research Question(s) • Research Design	<ul style="list-style-type: none"> • States research problem and explains its importance • Provides a clear and complete purpose statement • Provides clear research question(s) that are aligned with purpose statement • Provides a clear rationale for a mixed methods approach • Describes and justifies the type of mixed methods design 	/4
Methodology For <u>each</u> aspect (qualitative and quantitative): • Data Sources • Sampling • Data Collection	<ul style="list-style-type: none"> • For <u>each</u> aspect of the study (qualitative <u>and</u> quantitative), the outline: <ul style="list-style-type: none"> ○ describes and justifies the sampling approach and proposed sample size ○ identifies data source(s) and explains how each will be used ○ describes and justifies approach to data collection • Details of methodology (sub-bullets above) are consistent with the respective aims of the qualitative and quantitative components of the study 	/4
Practical Considerations • Feasibility • Ethics • Limitations	<ul style="list-style-type: none"> • Justifies feasibility of proposed research • Identifies potential ethical issues and how they may be managed • Identifies key limitations and how they may be minimized 	/1
Writing Style	<ul style="list-style-type: none"> • Written in prose (not bullet point) format • Presents study in clear, organized, and coherent fashion • Uses APA referencing 	/1
Total		/10

2. Research Proposal – Presentation (15%)

You will present your complete mixed methods study proposal in class. This presentation should be 10-15 minutes long (to be confirmed based on class size) and should include all major points in your proposal. It is expected that your presentation will be accompanied by PowerPoint slides that you will present to the class. Each student will pre-circulate slides to a designated classmate **at least 48 hours in advance (July 4th by 8:30 am)**. The classmate will offer a 5-minute peer review of your presentation to launch feedback from the group during a question-and-answer period.

You are required to submit your own PowerPoint slides on *Avenue to Learn* by the start of class.

Marking Grid for Presentation of Complete Proposal (15%):

Dimension	Details	Score
Description of Proposed Study – Background	<ul style="list-style-type: none"> • Provides a concise, compelling introduction to topic • Clearly presents the research problem, purpose statement, and research question(s); all three are well-justified and aligned • Provides a clear rationale for a mixed methods approach 	/4
Description of Proposed Study – Methodology	<ul style="list-style-type: none"> • Clearly describes and justifies the research design • For <u>each</u> aspect of the study (qualitative <u>and</u> quantitative) clearly describes and justifies: <ul style="list-style-type: none"> ○ sampling approach ○ data sources ○ data collection approach ○ data analysis approach • Clearly describes and justifies approach to data integration 	/6

Reflections on Proposed Study	<ul style="list-style-type: none"> • Provides thoughtful reflections on: <ul style="list-style-type: none"> ○ expected contributions of the study ○ advantages and disadvantages of a mixed methods approach to the research question ○ ethical considerations ○ potential challenges executing the study ○ limitations and biases inherent in the study and how to address them 	/4
Quality of Presentation	<ul style="list-style-type: none"> • Slides are clear, organized, and visually appealing • Answers audience questions clearly and completely 	/1
Total		/15

4. Peer Review of Research Proposal Presentation (5%)

You will present an oral peer review of a designated classmate's proposal presentation based on a pre-circulated version of their PowerPoint slides (minimum 48 hour in advance), drawing on the lessons learned regarding peer review and quality assessment in Week 8. You will submit a written version of the main points in prose format (500 words maximum) of your critique on Avenue to Learn by start of class on July 6.

Marking Grid for Peer Review of Colleague's Presentation (5%):

Dimension	Details	Score
Oral peer review feedback to enhance proposal and promote discussion	<ul style="list-style-type: none"> • Feedback on quality and clarity of (1 point for the following): <ul style="list-style-type: none"> ○ purpose statement ○ research question(s) ○ research design • sampling, data sources, and data collection procedures for <u>both</u> the qualitative and quantitative aspects of the study (1 point) • Comments on study feasibility, potential ethics issues, and limitations (1 point) 	/3
Written submission summarizing main feedback	<ul style="list-style-type: none"> • In addition to quality of oral peer review feedback on the dimensions above: • Clarity of writing in presenting main feedback points • Appropriate tone re. constructive feedback 	/2
Total		/5

5. Research Proposal – Written (35%)

You will develop an 5-6 page proposal describing your mixed methods study.

Marking Grid for Complete Written Research Proposal (35%):

Dimension	Details	Score
Introduction and Importance	<ul style="list-style-type: none"> • Provides a compelling introduction to topic • Describes research problem and explains its importance • References adequate supporting literature 	/5
Research Purpose and Research Questions	<ul style="list-style-type: none"> • Provides a clear and complete purpose statement • Provides clear research question(s) that are aligned with purpose statement 	/5

	<ul style="list-style-type: none"> • Provides a clear rationale for a mixed methods approach 	
Research Design and Methodology	<ul style="list-style-type: none"> • Describes and justifies the type of mixed methods design • Distinguishes between the qualitative and quantitative aspects of the study, and describes how they are linked • For <u>each</u> aspect of the study (qualitative <u>and</u> quantitative), the proposal: <ul style="list-style-type: none"> ○ Describes and justifies the sampling approach and proposed sample size ○ Identifies data source(s) and how each will be used ○ Describes and justifies approach to data collection ○ Describes and justifies approach to data management and analysis • Details of methodology (sub-bullets above) are consistent with the respective aims of the qualitative and quantitative components of the study <p>-----</p> <ul style="list-style-type: none"> • Describes and justifies approach to integrating the data • Considers how the integrated data may be best represented 	/10
Contributions/ Implications	<ul style="list-style-type: none"> • Describes anticipated contribution(s) of the study (theoretical, practical, and/or methodological) 	/5
Writing Style	<ul style="list-style-type: none"> • Presents study in clear, organized, and coherent fashion • Appropriate spelling, punctuation, grammar, and word choice • Uses APA referencing 	/3
Total		/35

ACADEMIC INTEGRITY

You are expected to exhibit honesty and use ethical behaviour in all aspects of the learning process. Academic dishonesty is to knowingly act or fail to act in a way that results or could result in unearned academic credit or advantage. This behaviour can result in serious consequences, e.g. the grade of zero on an assignment, loss of credit with a notation on the transcript (notation reads: "Grade of F assigned for academic dishonesty"), and/or suspension or expulsion from the university. It is your responsibility to understand what constitutes academic dishonesty. For information on the various types of academic dishonesty please refer to the Academic Integrity Policy, located at: www.mcmaster.ca/academicintegrity. The following illustrates only three forms of academic dishonesty: (1) Plagiarism, e.g. the submission of work that is not one's own or for which other credit has been obtained; (2) Improper collaboration in group work; and (3) Copying or using unauthorized aids in tests and examinations

If you have conducted a project or assignment for another course on a similar topic to the one you propose to do for this course you are required to obtain instructor permission in advance of proceeding with the topic. This is to ensure that projects or assignments are sufficiently different from one another. If in doubt, please contact the instructor.

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STUDENT ACCESSIBILITY SERVICES

Student Accessibility Services (SAS) offers various support services for students with disabilities. Students are required to inform SAS of accommodation needs for course work at the outset of term. Students must forward a copy of such SAS accommodation to the instructor normally, within the first three (3) weeks of classes by setting up an appointment with the instructor. If a student with a disability chooses NOT to take advantage of an SAS accommodation and chooses to sit for a regular exam, a petition for relief may not be filed after the examination is complete. The SAS website is: <http://sas.mcmaster.ca>

POTENTIAL MODIFICATION TO THE COURSE

The instructors and university reserve the right to modify elements of the course during the term. The university may change the dates and deadlines for any or all courses in extreme circumstances. If either type of modification becomes necessary, reasonable notice and communication with the students will be given with explanation and the opportunity to comment on changes. It is the responsibility of the student to check their McMaster email and course websites weekly during the term and to note any changes.

ACKNOWLEDGEMENT OF COURSE POLICIES

Your registration and continuous participation (e.g. on *Avenue to Learn*, in the classroom, etc.) to the various learning activities of C780 will be considered to be an implicit acknowledgement of the course policies outlined above, or of any others that may be announced during lecture and/or on *Avenue to Learn*. **It is your responsibility to read this course outline, to familiarize yourself with the course policies outlined here and on *Avenue to Learn*, and to act accordingly.**

Lack of awareness of the course policies **cannot be invoked** at any point during this course for failure to meet them. It is your responsibility to ask for clarification on any policies that you do not understand.