

C780
Mixed Methods Research
Summer 2020 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 and to conduct a peer review of a classmate's proposal.

INSTRUCTORS AND CONTACT INFORMATION

Dr. Jenna Evans
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Dr. Gillian Mulvale
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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 using **synchronous online Zoom meetings** every **Thursday 11:30-2:00pm**. 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 3rd 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	10%	Throughout
Student-Led Sessions	20%	TBD
Outline of Research Proposal (10% written + 5% presentation)	15%	June 11
Research Proposal – Presentation	15%	July 9
Oral Peer Review of Classmate’s Research Proposal	5%	July 9
Research Proposal – Written	35%	July 16
	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				
			Student-Led Sessions (20%)	Outline of Research Proposal (15%)	Research Proposal – Presentation (15%)	Oral Peer Review of Classmate’s Proposal (5%)	Research Proposal – Written (35%)
May 7	Introduction to Mixed Methods Research and Philosophical Foundations	BOTH					
May 14	Designing Studies – Part 1	Jenna	X				
May 21	Designing Studies – Part 2	Gillian	X				
May 28	Generating Research Questions	Jenna	X				
June 4	Sampling & Collecting Data <i>+ optional consultation with assigned instructor</i>	Gillian	X				
June 11	Student presentations on proposal outlines	BOTH		X			
June 18	Analyzing & Integrating Data	Jenna	X				
June 25	Assessing Quality & Conducting Peer Reviews	Gillian	X				
July 2	Writing & Publishing <i>+ optional consultation with assigned instructor</i>	Jenna	X				
July 9	Student presentations on research proposals and peer review	BOTH			X	X	
July 16	Final research proposal due to instructors	N/A					X

REQUIRED READINGS

Week 1 (May 7th): 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 (May 14th): Designing Studies in Mixed Methods Research – Part 1

- Creswell & Clark Mixed Methods, Chapter 3

Week 3 (May 21st): Designing Studies in Mixed Methods Research – Part 2

- Creswell & Clark Mixed Methods, Chapter 4

Week 4 (May 28th): 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.

Week 5 (June 4th): Sampling & Collecting Data in Mixed Methods Research

+ *Optional Consultation with Assigned Instructor Regarding Proposal*

- 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>

Week 6 (June 11th): Student Presentations

Week 7 (June 18th): Analyzing & Integrating Data in Mixed Methods Research

- Creswell & Clark Mixed Methods, Chapter 7
- Östlund, U., Kidd, L., Wengström, Y., & Rowa-Dewar, N. (2011). Combining qualitative and quantitative research within mixed method research designs: A methodological review.

International Journal of Nursing Studies, 48(3), 369–383.
<https://doi.org/10.1016/j.ijnurstu.2010.10.005>

- 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>

Week 8 (June 25th): Assessing Quality in Mixed Methods Research & Conducting Peer Reviews

- Creswell & Clark Mixed Methods, 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/attach/127916259/MMAT_2018_criteria-manual_2018-08-01_ENG.pdf

Week 9 (July 2nd): Writing & Publishing Mixed Methods Research

+ *Optional Consultation with Assigned Instructor Regarding Proposal*

- 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.

Week 10 (July 9th): Student Presentations

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 (10%)

Since this is a graduate course using a seminar-style structure, active participation each week is expected, and this requires preparation. You are expected to do the assigned readings and come prepared to discuss. 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.

Class participation grades will be based on an assessment by the instructors of how well you fulfill your assigned roles during student-led sessions (as described below) as well as on your level of participation during sessions led by instructors and during student presentations. Feedback on your participation will be provided at the mid-point and end of course.

For specific student-led weeks, you will be assigned one of three roles to facilitate discussion: (1) Discussion Leader, (2) Passage Master, and (3) Devil’s Advocate. The role of the Discussion Leader is described under “Student-Led Sessions”. The role of Passage Master and Devil’s Advocate are described below.

Passage Master: Before class, your job is to locate a few passages that are important in the week’s assigned reading. These may give key information, back up the information given, or summarize the author’s key points. They might also be passages that strike your fancy for some reason, are particularly well written, or might be controversial or contradictory with other passages or other information learned in class. During class, offer up each passage as it fits the discussion, including a commentary about why you think the passage is important. If any passages do not naturally fit the discussion, share them with your classmates once the discussion leader has finished posing her/his discussion questions.

Devil’s Advocate: Before class, your job is to challenge the ideas in the week’s readings by developing a list of critical, thoughtful questions and arguments that might be raised by critics of the authors or by those with different points of view. During class, raise these critical questions during the discussion, particularly when the group is in agreement. Throw in a contradictory idea or a point that goes against the flow. In addition to preparing in advance, you may also wish to contribute contradictory ideas in the midst of the discussion to respond to what others are saying.

Students are expected to attend all classes by zoom as described in the course schedule, 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.

STUDENT-LED SESSIONS (20%)

Each student will be assigned the role of “Discussion Leader” for one or two sessions.

Discussion Leader: As discussion leader, your job is to develop and present a PowerPoint slide deck (with references) that outlines:

1. your key takeaways/lessons learned from the required readings;
2. the application of your takeaways/lessons learned to an example (either the proposal you are developing or an example from the literature); and
3. at least three possible discussion questions to help everyone understand, reflect on, and apply the main points of the readings. Your task is to help people talk over the big ideas in the readings and to share reactions to the reading. Be prepared with your own brief answers to your questions. During class, you will lead/facilitate the group discussion.

It is expected that the presentation and discussion you prepare will take approximately 1-1.5 hours of class time. You are required to submit your PowerPoint slides on *Avenue to Learn* by the start of class.

Marking Grid for Student-Led Session(s) (20%):

Dimension	Details	Score
Content of Presentation	<ul style="list-style-type: none"> • Clearly summarizes key takeaways/lessons learned from all required readings • Identifies similarities and differences in content between readings, where relevant 	/12

	<ul style="list-style-type: none"> • Applies content of readings to an example to support comprehension and retention of the key takeaways 	
Quality of Facilitation	<ul style="list-style-type: none"> • Shares at least three thoughtful discussion questions • Effectively leads/facilitates the discussion • Demonstrates mastery of week's topic • Slides are clear, organized, and visually appealing 	/8
Total		/20

MIXED METHODS RESEARCH PROPOSAL

Students will design a mixed methods research study proposal on a healthcare-related topic of their choice. Final approval of your topic by an instructor is required before proceeding with development of your full proposal. There are four assignments associated with the development of this proposal, outlined below.

1. Outline of Research Proposal (15% - Due June 11, 2020)

You will prepare a 1-2 page written outline of your mixed methods research proposal (10%) and a 10-15 minute presentation of your outline using PowerPoint (5%) that you will share with the class using the "share screen" feature on Zoom.

Marking Grid for Written Outline (10%):

Dimension	Details	Score
Introduction <ul style="list-style-type: none"> • 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): <ul style="list-style-type: none"> • 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 <ul style="list-style-type: none"> • 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

Marking Grid for Presentation of Outline (5%):

Dimension	Details	Score
Description of Proposed Study	<ul style="list-style-type: none"> • Clear, concise, and well-justified presentation of: <ul style="list-style-type: none"> ○ purpose statement ○ research question(s) ○ research design • Adequate detail and justification for sampling, data sources, and data collection procedures for <u>both</u> the qualitative and quantitative aspects of the study • Briefly comments on study feasibility, potential ethics issues, and limitations 	/3
Reflections on Proposal Development	<ul style="list-style-type: none"> • Shares reflections on process of developing proposal (e.g., current or anticipated challenges, pending tasks) 	/1
Quality of Presentation	<ul style="list-style-type: none"> • Answers audience questions clearly and completely • Slides are clear, organized, and visually appealing 	/1
Total		/5

2. Research Proposal – Presentation (15% - Due July 9, 2020)

You will present your complete mixed methods study proposal in class. This presentation should be 20 minutes long and should include all major points in your proposal. It is expected that your presentation will be accompanied by PowerPoint slides that you will share with the class using the “share screen” feature on Zoom. Your presentation will be followed by a question and answer period.

For the purposes of peer review, you must send your draft PowerPoint slide deck to the classmate you have been matched with by noon on July 7th (two days before the deadline). Your draft slide deck must include all the necessary background and methodological details for your classmate to conduct peer review.

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 ○ potential challenges executing the study ○ limitations and biases inherent in the study 	/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

3. Oral Peer Review of Classmate’s Proposal (5% - Due July 9, 2020)

Providing effective peer review is a core research skill that we want you to develop in the course. You will conduct a peer review of an assigned classmate’s research proposal and will present your review in class using PowerPoint slides that you will share with the class using the “share screen” feature on Zoom. Your presentation should be 5-10 minutes long and provide constructive feedback to help advance your classmate’s proposal. Your assigned proposal for review will be sent to you by your classmate(s) on July 7th (two days before the deadline).

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

Marking Grid for Oral Peer Review (5%):

Dimension	Details	Score
Assessment	<ul style="list-style-type: none"> • Clearly identifies the strengths and weaknesses of the proposal • Provides references to support assessment, where applicable 	/2
Suggestions	<ul style="list-style-type: none"> • Offers suggestions for improvement that are grounded in best practices • Provides references to support suggestions, where applicable 	/2
Presentation Style	<ul style="list-style-type: none"> • Presents content of the review in a friendly and constructive tone • Slides are clear, organized, and visually appealing 	/1
Total		/5

4. Research Proposal – Written (35% - Due July 16, 2020)

You will develop a 10-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 • Provides a clear rationale for a mixed methods approach 	/5
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 	/8

	<ul style="list-style-type: none"> ○ 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 <hr style="border-top: 1px dashed black;"/> <ul style="list-style-type: none"> • Describes and justifies approach to integrating the data • Considers how the integrated data may be best represented 	/5
Feasibility, Ethics, and 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 biases, and how they may be minimized 	/3
Implications and Knowledge Translation	<ul style="list-style-type: none"> • Describes anticipated contribution(s) of the study (theoretical, practical, and/or methodological) • Describes initial plan for knowledge translation (i.e., identify key audiences of the study and suggest one KT approach for each) 	/6
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.