

HLTH AGE 3B03: ADVANCED RESEARCH INQUIRY Winter 2019

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Course Description

In this course, students will learn how to design research projects in preparation for conducting a fourth-year thesis project or independent project in the health or social sciences. Students will gain hands-on experience conducting qualitative and quantitative research at every stage of the research process: selecting a topic, reviewing literature, developing a research question or hypothesis, designing interview guides, collating measures for survey research, collecting and analyzing data, and writing academic research reports. Openness and transparency in the research process will be emphasized.

Course Objectives

By the end of the course students should be able to:

- Critically analyze the research methods of empirical papers
- Design appropriate methods for answering research questions and hypotheses
- Work together as a team on research projects
- Transcribe and code interview data
- Gain familiarity with basic statistical software for analyzing quantitative data
- Write research reports in a clear and concise manner

Required Materials and Texts

David, M. & Sutton, C. (2011). Social research: An introduction (2nd ed.) London: Sage.

Class Format

Classes will consist of formal lectures and interactive group-based problem-solving. Students will be expected to work in teams to conduct their research projects; therefore, it will be essential to attend each class to make progress on your group projects.

Course Evaluation – Overview

1. Qualitative report – 30%, due Feb 26
2. Quantitative report – 30%, due April 9
3. Final exam – 40%, date TBA

Course Evaluation – Details

The assessment for this course is based on two group-based projects, one qualitative and one quantitative. You will be assigned to a different group for each project, with each group consisting of approximately 5 members (depending on course enrollment). Time will be given in class to work on your group projects, but it may still be necessary to communicate/meet outside of class time to complete your projects. You will work together to devise a topic, create your materials, collect data, and analyze the data.

Each group will submit a single report for the qualitative project, but each student will submit their own individual report for the quantitative project. Therefore, projects will be marked on a group basis for the qualitative project and on an individual basis for the quantitative project.

To facilitate communication with your group members, an online and “group” space will be created for you on Avenue to Learn. In this space you can send emails, post comments on a discussion board, and share documents with group members. Please note that all comments posted in this space are visible to your Professor. To access your group, log in to Avenue to Learn and click on the tab “communication” and then “groups.” To protect the confidentiality of the data collected in this class, you must use this platform (and no other) to share documents (e.g. interview transcripts, data files) with members of your group.

1. Qualitative Report (30%), due Feb 26

In groups, you will identify a topic of research and research question(s) that can be studied using an interview. To facilitate completion of this project in a timely manner, groups will be instructed to be mindful of identifying a research topic which will involve easy access to and the identification of potential participants (e.g., parents, grandparents, fellow students). The topic is encouraged to be related to health- and age-related issues. However, it is acceptable to go beyond this terrain given the types of people that you have access to in your social networks. *You must pick a topic that is unlikely to create anxiety and discomfort or involve, during the interview, recall of unpleasant or traumatic events. Your topic must also not involve a high-risk population (e.g., those with mental health issues) or vulnerable persons (e.g., children, persons with disabilities, persons with dementia).*

Interviews should be semi-structured; the interview guide will be developed in consultation with your group. Please agree on **five** questions that all members of your group will ask interviewees; probes/follow-up questions can be decided on an individual basis. Aim for an interview that will last for approximately **15 minutes**. Next, each group member will recruit one person to be interviewed. Absolutely no personally-identifying information (including photographs) should be taken of participants during the interview. Recruitment materials are posted on Avenue to Learn that can be used, once modified, to facilitate the process of recruitment. Your group should also modify the Letter of Information and Informed Consent form template by including a brief description of your research. You will receive guidance in class about how to create an interview guide; samples can also be found on the McMaster Research Ethics Board (MREB; <http://reo.mcmaster.ca>). *Before data collection begins, you must ensure that your topic of research, population of interest, recruitment strategy, recruitment documents (e.g., email scripts), Letter of Information/Informed Consent Form, and interview guide have been reviewed and approved by your Professor.*

After completion of the interview, you will transcribe the interview and post a copy of it in your group space on Avenue to Learn. Your Professor will show you in class how to use freely available transcription software to complete this task. Upon receipt of all the transcripts from your group, you will begin, on your own time, to carefully read them and make notes on the data. In doing so, you will highlight notable quotes or passages of text. Once you have read through all of the interview transcripts generated by your group and gotten a feel for the content, you will begin the process of coding the data, which involves organizing the interview material into themes. Next, in class, you will meet with members of your group to discuss the preliminary codes that you have each assigned to the data. As a group, you will discuss what is analytically interesting about the data based on the themes and sub-themes that each group member has identified. You will also discuss what themes are the most useful in answering your research question.

You will write your qualitative report as a group (1500 words excluding references). It should be written in APA style and consist of the following sections: title page, abstract, introduction/literature review, method, results, discussion, references. It is strongly recommended that you assign different group members to write the different sections of the report, and then edit each other's work until you submit a single group report that everyone is satisfied with. You should also include a copy of the transcripts for the interviews that everyone in your group conducted.

2. Quantitative Report (30%), due April 9

For this project, you will work in groups of approximately 5 students to quantitatively assess the predictors of mental and physical well-being. Each group will assess one predictor variable and one moderator variable; all groups will measure the same two outcome variables (the 6-item Warwick-Edinburgh mental health survey to measure mental/emotional well-being, and the general health perceptions subscale from the SF-36 to measure physical well-being). Groups will choose one of the following predictor variables: stress, personality traits, gender role conformity, perceived discrimination, relationship quality, or social media use. Groups will also choose one of the following moderator variables: age, gender, ethnicity, or SES. For example, if a group chooses stress as their predictor and age as their moderator, their project would assess (a) the association of stress with well-being, and (b) whether this association varies by age. As another example, if a group chooses perceived discrimination as their predictor variable and ethnicity as their moderator, their project would assess (a) the association of perceived discrimination with well-being, and (b) whether this association varies by ethnic group. Your group will need to find a relatively short (e.g., 10 items) published scale to assess the predictor variable, and devise an appropriate way of assessing the moderator variable. Your group will then need to develop 1-3 hypotheses and preregister them using AsPredicted (<https://aspredicted.org/>). Next, you will create an online survey using Google forms or LimeSurvey (more information available here: <https://reo.mcmaster.ca/limesurvey>). Each member of your group will distribute an

online link to your survey to your social networks (e.g., via email, word of mouth, or social media) with the expectation of recruiting at least 10 participants each. When data collection is finished, your group will analyze the data using JAMOVI software (<https://www.jamovi.org/download.html>), which is free to download. Finally, each student will produce their own report.

3. Final Exam (40%), date TBA

The two-hour exam will consist of multiple-choice questions only. It will be based on all of the material presented in lectures. Please note that you will not be tested on details such as names of authors or dates of publication. As the exam is worth 40%, is not eligible for an online MSAF. If the exam is missed, please visit your respective Faculty office with appropriate documentation for the Faculty to review. If Faculty approval is obtained, there will be a make-up date for the exam (TBA).

Weekly Course Schedule and Required Readings

Week 1 (Jan 8 & 10) Introduction to research methods: Identifying a research topic/question; theoretical frameworks and their links with various methods

Readings: Chapters 1 and 4 of David & Sutton (2011).

Week 2 (Jan 15 & 17) Research ethics and conducting literature reviews

Readings: Chapters 2 and 3 of David & Sutton (2011).

Notes: group work to establish research question for qualitative project.

Week 3 (Jan 22 & 24) Qualitative research design: Interviews

Readings: Chapters 5 and 6 of David & Sutton (2011).

Notes: group work to develop interview guide; start collecting data.

Week 4 (Jan 29 & 31) Qualitative analysis: Transcription, grounded theory, IPA, thematic analysis

Readings: Chapters 6, 18, and 19 of David & Sutton (2011).

Notes: finish collecting interview data, transcribe data.

Week 5 (Feb 5 & 7) Quantitative research design: Experimental and survey methods

Readings: Chapter 12 of David & Sutton (2011).

Notes: group work to develop codes for interviews.

Week 6 (Feb 12 & 14) Quantitative research design: Operationalizing variables, developing hypotheses, sampling

Readings: Chapters 13 and 14 of David & Sutton (2011).

Notes: group work to establish variables, hypotheses, target sample for quantitative project.

Week 7 (Feb 19 & 21)

Reading Week – no classes

Week 8 (Feb 26 & 28) Quantitative research design: Measurement, selecting scales, reliability and validity

Readings: Chapter 15 of David & Sutton (2011).

Notes: qualitative report due on February 26; group work to select measures for quantitative project.

Week 9 (Mar 5 & 7) Designing an online survey and study preregistration

Readings: <https://www.psychologicalscience.org/observer/research-preregistration-101>

Notes: group work to create online survey using Google Docs or LimeSurvey; study preregistration through AsPredicted. Start collecting data for quantitative project.

Week 10 (Mar 12 & 14) Quantitative data analysis: JAMOVI statistical software

Readings: Chapters 23 and 24 of David & Sutton (2011).

Notes: group work to analyze data using JAMOVI; finish collecting data.

Week 11 (Mar 19 & 21) Quantitative data analysis: JAMOVI statistical software

Readings: Chapters 25 and 26 of David & Sutton (2011).

Notes: group work to analyze your own data using JAMOVI

Week 12 (Mar 26 & 28) Writing a research report

Readings: Chapter 28 of David & Sutton (2011).

Notes: group work to analyze your own data using JAMOVI

Week 13 (Apr 2 & 4) Replicability and openness in social science research

Readings: Simmons, J. P., Nelson, L. D., & Simonsohn, U. (2011). False-positive psychology: Undisclosed flexibility in data collection and analysis allows presenting anything as significant. *Psychological Science*, 22, 1359-1366.

Week 14 (Apr 9) Review

Notes: Quantitative report due

Course Policies

Submission of Assignments

Please submit an electronic copy of your reports via the dropboxes in Avenue to Learn (Assessments → Assignments). These dropboxes are Turnitin-enabled. Emailed assignments will NOT be accepted. For the qualitative report, each student should submit a copy of the group report (make sure you are all submitting the same version). Your reports should be typed and double-spaced in 12-point Times New Roman font with one inch (2.54cm) margins on all sides. Please include a title page with your essay title, student number, and date submitted, and a References section at the end. Please note that the Professor is not able to provide feedback on written drafts; however, we are happy to answer questions in person or via email.

Grades

Grades will be based on the McMaster University grading scale:

MARK	GRADE
90-100	A+
85-90	A
80-84	A-
77-79	B+
73-76	B
70-72	B-
67-69	C+
63-66	C
60-62	C-
57-59	D+
53-56	D
50-52	D-
0-49	F

Late Assignments

Extensions for course assignments will only be granted under conditions of medical, family, or other extraordinary circumstances. All other late assignments will be penalized at a rate of 5% per day (including weekends). Late assignments will not be accepted after 7 days beyond the original deadline without appropriate documentation from the Office of the Associate Dean of Social Sciences.

Requests for Relief for Missed Academic Term Work

McMaster Student Absence Form (MSAF)

In the event of an absence for medical or other reasons, students should review and follow the Academic Regulation in the Undergraduate Calendar "Requests for Relief for Missed Academic Term Work".

Avenue to Learn

In this course we will be using Avenue to Learn. Students should be aware that, when they access the electronic components of this course, private information such as first and last names, user names for the McMaster e-mail accounts, and program affiliation may become apparent to all other students in the same course. The available information is dependent on the technology used. Continuation in this course will be deemed consent to this disclosure. If you have any questions or concerns about such disclosure please discuss this with the course instructor.

Authenticity / Plagiarism Detection

In this course we will be using a web-based service (Turnitin.com) to reveal authenticity and ownership of student submitted work. Students will be expected to submit their work electronically either directly to Turnitin.com or via Avenue to Learn (A2L)

plagiarism detection (a service supported by Turnitin.com) so it can be checked for academic dishonesty.

Students who do not wish to submit their work through A2L and/or Turnitin.com must still submit an electronic and/or hardcopy to the instructor. No penalty will be assigned to a student who does not submit work to Turnitin.com or A2L. All submitted work is subject to normal verification that standards of academic integrity have been upheld (e.g., on-line search, other software, etc.). To see the Turnitin.com Policy, please go to www.mcmaster.ca/academicintegrity.

Course Modification

The instructor reserves the right to modify elements of the course during the term. If any 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 his/her McMaster email and course websites weekly during the term and to note any changes.

University Policies

Academic Integrity Statement

You are expected to exhibit honesty and use ethical behavior in all aspects of the learning process. Academic credentials you earn are rooted in principles of honesty and academic integrity.

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 behavior 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:

- Plagiarism, e.g. the submission of work that is not one's own or for which credit has been obtained.
- Improper collaboration in group work.
- Copying or using unauthorized aids in tests and examinations.

Academic Accommodation of Students with Disabilities

Students who require academic accommodation must contact Student Accessibility Services (SAS) to make arrangements with a Program Coordinator. Academic accommodations must be arranged for each term of study. Student Accessibility

Services can be contacted by phone 905-525-9140 ext. 28652 or e-mail sas@mcmaster.ca. For further information, consult McMaster University's Policy for [Academic Accommodation of Students with Disabilities](#).

Academic Accommodation for Religious, Indigenous or Spiritual Observances (RISO)

Students requiring academic accommodation based on religious, indigenous or spiritual observances should follow the procedures set out in the RISO policy. Students requiring a RISO accommodation should submit their request to their Faculty Office normally within 10 working days of the beginning of term in which they anticipate a need for accommodation or to the Registrar's Office prior to their examinations. Students should also contact their instructors as soon as possible to make alternative arrangements for classes, assignments, and tests.

Faculty of Social Sciences E-mail Communication Policy

Effective September 1, 2010, it is the policy of the Faculty of Social Sciences that all e-mail communication sent from students to instructors (including TAs), and from students to staff, must originate from the student's own McMaster University e-mail account. This policy protects confidentiality and confirms the identity of the student. It is the student's responsibility to ensure that communication is sent to the university from a McMaster account. If an instructor becomes aware that a communication has come from an alternate address, the instructor may not reply at his or her discretion.

Extreme Circumstances

The University reserves the right to change the dates and deadlines for any or all courses in extreme circumstances (e.g., severe weather, labour disruptions, etc.). Changes will be communicated through regular McMaster communication channels, such as McMaster Daily News, A2L and/or McMaster email.