Overview

Education 695 is designed to serve as a first introduction to the design and practice of educational research.

Goals

The course readings and lectures will examine fundamental issues of research design and practice from a variety of methodological perspectives — qualitative, experimental, and non-experimental multivariate methods. Upon completion of this course you will be able to:

- Appreciate the complexity of the issues that are faced by educational researchers, and understand how different methodological traditions approach these issues;
- Critically evaluate research literature and evaluate the evidence on which generalizations are made in the published literature; and,
- Use appropriate reasoning to synthesize a body of literature.

We will, by necessity, use some basic math along the way in order to better understand the statistical concepts we will be studying, but please note that our primary focus will be on developing a conceptual understanding of qualitative and quantitative research methods.

Since educational research is usually a group activity, we will emphasize group work during the course. You will be encouraged to collaborate during and outside of class periods on course projects described in detail below.

Readings

There are a few required texts for this class:


Although the ISBN numbers are to paperback copies, please feel free to get either the paper or electronic version of these texts. A book I recommend (but did not order due to its availability) is the most current publication manual of the American Psychological Association. If you do not already have a copy, consider purchasing it as a general writing resource for all of your classes. Any assigned readings and materials not included in the basic texts will be available on reserve at the Undergraduate Library or posted on Canvas.
Course requirements

All assigned readings and lectures need to be completed before class on the assigned date. I want students to participate actively in class, including attending class and preparing materials in advance. Much of the value of the class comes from the contribution of the students. If you miss a session, most sessions will be recorded so you can catch up on the discussion you missed.

You will be asked to provide two critical reviews of published articles in your area of interest. The first of these will be based on research conducted with qualitative methods, while the second will be a review of a statistical piece of research. You will need to send an electronic copy of the article with your review.

The capstone course activity will be a literature review paper of 15-20 pages using research analysis skills learned in this course. The intent is that this assignment be done in groups of three or four students; we will discuss group formation during class as the time approaches. Each group will make a short video presentation on the group’s review efforts at the end of the term.

In addition to completing a literature review as a group, each student will review a draft literature review written by another group and provide suggestions for improvement. Each group will make decisions on final paper revisions to address the suggestions of these reviews. These reviews will count toward the reviewer’s grade for each project, but will not have any impact on the grade of the paper being reviewed.

All written assignments must be typed, edited for spelling and grammar, and formatted in APA style. We will make an exception for long quotes, which should be single-spaced. Please use double spacing, one-inch margins, and a 12-point font. Students should submit all assignments through Canvas unless otherwise indicated by the instructor.

The Sweetland Writing Center is an excellent resource if you confront any dilemmas when writing papers. Do take advantage of this center, but make contact early – this resource is popular.

Integrity

Academic honesty is essential to this class, both to conduct our conversations and study do and to have faith that research we will discuss and analyze was crafted with integrity. I encourage you to read your rights and responsibilities as a student. Information on these topics is at: https://rackham.umich.edu/academic-policies/section8/

DEI

I intend to present materials and activities that are respectful of our diverse world. I encourage you to provide suggestions on how we can incorporate new materials to improve the course for all students. The University of Michigan has a strong commitment to diversity, equity, and inclusion; you can gain some of the background at: http://www.diversity.umich.edu

Accommodation

If you think you need an accommodation for a disability, please let me know at your earliest convenience. Some aspects of this course, the assignments, the in-class activities, and the way the course is usually taught may be modified to facilitate your participation and progress. As soon as you make me aware of your needs, we can work with the Office of Services for Students with Disabilities (SSD) to help us determine appropriate academic accommodations. SSD (734-763-3000; ssd.umich.edu) typically recommends accommodation through a Verified Individualized Services and Accommodations (VISA) form. Any information you provide is private and confidential and will be treated as such.
Assessment and Evaluation

For the purpose of assigning grades, student performance will be evaluated as follows:

1. **Class participation — 1/6 of course grade**
   Criteria for this include regular attendance in class, preparation to participate in the day’s discussion, focused participation that goes beyond a regurgitation of the information, and respectful engagement with classmates during discussion.

2. **Critiques of published research — 1/3 of course grade**
   You will be expected to provide a critical evaluation of an article published after December 2015 that is not otherwise assigned for this course. The article should be a research study, not a literature review or conceptual essay. The article should focus on college students and be from one of the following journals:
   - Research in Higher Education
   - Journal of Higher Education
   - Review of Higher Education
   - Journal of College Student Development
   - Journal of Student Affairs Research and Practice

   As you critique this article, areas to emphasize include:
   - **Literature Review**: What are the main theoretical frameworks used? Are they compatible with the research question? Would other theoretical frameworks be more useful?
   - **Research methods**: What is the research question? What subquestions exist? What research method was used to address these questions?
   - **Results**: Highlight the most compelling findings in the results. You can use graphical depictions (tables, figures, charts) to make this easier to describe. What interested you, and why?
   - **Discussion**: What are the important points discussed? What implications for further research or for practice do you see here? Does this address the research question and the theoretical framework described earlier in the article? Is this a credible part of the ongoing research-based conversation about this topic?

   Students will submit two critiques of published research: One critique of qualitative research, and one critique of quantitative research. Each critique will be 5-7 pages long.

3. **Literature review paper — 1/3 of course grade**
   Groups will create a literature review, which classmates will peer review in full draft format before its final submission. This

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**Page limits?**

Where page limits are given, those are both minimum page expectations and maximum page limits. The final grade for a project will be reduced if the paper falls outside of this range.

**Milestones**

- **September 24 at 9 am**
  GROUP: Research issue and initial citation list for literature review

- **October 1 at 9 am**
  INDIVIDUAL: Critique of qualitative research paper

- **October 28 at 9 am**
  Complete draft of literature review, distributed to instructor and to peer reviewers

- **November 4 at 3 pm**
  Review of draft literature review, distributed to instructor and to authors

- **November 19 at 9 am**
  Critique of quantitative research paper
  Class presentation videos submitted

- **December 3 at 9 am**
  Final literature review; Class presentation discussion 2 December.
paper will require analysis of research literature surrounding a particular higher education issue. The format of these projects will be that of conference presentations or short research articles that appear in scholarly journals. The format of the final written products should conform to the standards in the American Psychological Association publication manual. Two thirds of this grade will be given for the paper, and one third for the accompanying class presentation by the group.

4. **Review of literature review paper — 1/6 of course grade**

   Each student will review a paper written by another student and provide suggestions for improvement. These reviews will count toward the reviewer’s grade, but will not have any impact on the grade of the person being reviewed. This review should be 5-7 pages.

**Tentative Course Schedule**

<table>
<thead>
<tr>
<th>Date</th>
<th>Topics</th>
<th>Readings (Chapters)</th>
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<tbody>
<tr>
<td>Sept. 2</td>
<td>Course overview&lt;br&gt;Fundamental research concepts&lt;br&gt;Initial group exploration</td>
<td>Machi &amp; McEvoy: Introduction and 1.</td>
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<tr>
<td>Sept. 9</td>
<td>Introduction to literature reviews&lt;br&gt;Introduction to qualitative research&lt;br&gt;Group formation</td>
<td>Machi &amp; McEvo: 5, 6. Skim the rest for now.&lt;br&gt;Stage &amp; Manning: 1-2</td>
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<td>Sept. 16</td>
<td>Applications of qualitative research</td>
<td>Stage &amp; Manning: 3-5; 7-8</td>
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<td>Sept. 23</td>
<td>Interpreting qualitative research</td>
<td>Stage &amp; Manning: 6, 13</td>
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<td>Sept. 30</td>
<td>Conceptual issues in quantitative research&lt;br&gt;Central tendency and variability&lt;br&gt;Introduction to distributions</td>
<td>Salkind: 1–4</td>
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<td>Oct. 7</td>
<td>Reliability and validity&lt;br&gt;Correlations, creating and testing hypotheses</td>
<td>Salkind: 5-8</td>
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<td>Oct. 14</td>
<td>Statistical inference and estimation</td>
<td>Salkind: 9–12</td>
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<td>Oct. 21</td>
<td>Analysis of Variance (ANOVA)</td>
<td>Salkind: 13–14</td>
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<td>Oct. 28</td>
<td>Linear regression, factor analysis</td>
<td>Salkind: 15–16</td>
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<td>Nov. 4</td>
<td>Chi Square, other topics</td>
<td>Salkind: 17–18</td>
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<td>Nov. 11</td>
<td>Any outstanding topics</td>
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<td>Nov. 18</td>
<td>Preparation for final presentations</td>
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<td>Nov. 25</td>
<td>Thanksgiving Break – no class session</td>
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<tr>
<td>Dec. 2</td>
<td>Group presentation discussion</td>
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Our country and our higher education institutions have encountered race-based violence, pandemics, and economic upheaval before this moment. What is unprecedented is the call to navigate all of those conditions at once. In spite of this combination of challenges, it is important to retain the optimism of higher education. There is a transformative power to the teaching and learning that happens on our campuses, even when it happens virtually.

This supplement contains some processes for our course, and likely for all of your courses, in light of this combination of events. The goal here is to provide as much protection for health and safety (physical and mental) as possible, while also acknowledging that these are trying times. Concern for such matters does not lessen the rigor of the work we do, but it does acknowledge that we are discussing the work of higher education at a contested and contentious time.

Wolverine Culture of Care and the Classroom

For the safety of all students, faculty, and staff on campus, it is important for each of us to be mindful of safety measures that have been put in place for our protection. By returning to campus, we each acknowledge our responsibility for protecting the collective health of our community. Participation in any in-person activity is conditional upon adherence to all safety measures mandated by the State of Michigan and the University, including maintaining physical distancing of six feet from others, and properly wearing a face covering. Other applicable safety measures may be described in the Wolverine Culture of Care and the University’s Face Covering Policy for COVID-19. Those unable or unwilling to adhere to these safety measures while in a face-to-face setting will be required to participate on a remote basis.

Course Recordings

Course lectures may be audio/video recorded and made available to other students in this course. As part of your participation in this course, you may be recorded. If you do not wish to be recorded, please contact Malinda Matney (mmatney@umich.edu) the first week of class (or as soon as you enroll in the course, whichever is latest) to discuss alternative arrangements.

Students are prohibited from recording/distributing any class activity without written permission from the instructor, except as necessary as part of approved accommodations for students with disabilities. Any approved recordings may only be used for the student’s own private use.

Additional information regarding course recordings and privacy concerns can be found on the UM ITS Recording and Privacy Concerns webpage.