Methods and forms

Because there is no one way to research, it is essential that you actively participate in this course. I expect you to complete the reading assignments prior to class, and come prepared to talk about them and/or practice using the techniques they describe. This will require more than simply reading; plan to spend at least as much time outside of class thinking about the materials as actually reading them.

**ECO Brownbags:** An Ecological/Community Psychology brownbag is scheduled for 12:30-1:30 on January 7, February 4, March 11, and April 1. These will cover topics relevant to research methods and are part of PSY870. Attendance is required for ECO students and optional (but encouraged) for non-ECO students.

**Things this seminar will and won't cover**

Research methods is a huge topic, and means many different things to different people and in different disciplines. To make the semester manageable, there are some things we will be able to cover and some things we won’t. Developing skills in research methods is a process that continues throughout one’s career, so this seminar is only designed to get you started.

*Research* – We will define research as the systematic and reproducible collection and analysis of data for the purposes of drawing generalizable conclusions. Although they are also important activities, this definition excludes things like evaluation, descriptive case study, and needs assessment.

*Epistemology* – We will focus on post-positivism, which holds that an objective reality exists, but that we are imperfect and biased observers of it. Although there are many different epistemological perspectives (i.e. theories about what “knowledge” is), post-positivism is the most widely held in contemporary science and the one you will encounter most often in the world.

*Qualitative vs. Quantitative* – We will generally not distinguish between qualitative and quantitative forms of data or analysis. Because this seminar is designed to explore how to do research, not on how to analyze a particular kind of data, the topics we will deal with apply broadly to qualitative, quantitative, and mixed methods forms of inquiry.
Readings
Singleton, R. A. & Straits, B. C. *Approaches to Social Research*. [Any of the following editions are fine]
- 3rd Edition: 1999, 0-19-510525-7

All other readings are available on D2L.

Course Policies
Academic Integrity: The General Student Regulations state that: “[1.00] The principles of truth and honesty are fundamental to the educational process and the academic integrity of the University; therefore, no student shall: [1.01] claim or submit the academic work of another as one’s own, [1.02] procure, provide, accept or use any materials containing questions or answers to any examination or assignment without proper authorization, [1.03] complete or attempt to complete any assignment or examination for another individual without proper authorization, [1.04] allow any examination or assignment to be completed for oneself, in part or in total, by another without proper authorization, [1.05] alter, tamper with, appropriate, destroy or otherwise interfere with the research, resources, or other academic work of another person, [1.06] fabricate or falsify data or results.” In accordance with the All-University Policy on the Integrity of Scholarship and Grades, any student found in violation of this regulation will receive a failing grade for the course, and may be referred for further disciplinary action. This includes all instances of plagiarism: if you do not know what plagiarism is, please see me immediately.

Students with disabilities: Michigan State University is committed to providing equal opportunity for participation in all programs, services and activities. Accommodations for persons with disabilities, with documentation from the MSU Resource Center for Persons with Disabilities, may be requested by contacting me at the start of the term and/or two weeks prior to the accommodation date (test, project, etc). Requests received after this date will be honored whenever possible.

Attendance & Late Assignments: If you are unable to attend class, please let me know as early as possible. You may only make up coursework if you make arrangements with me in advance. All assignments are due in hardcopy or by email (to zpneal@msu.edu) at the beginning of class on the listed due date. Late assignments will not be accepted unless you have a documented emergency.

Limits to confidentiality. Essays, journals, and other materials submitted for this class are generally considered confidential pursuant to the University's student record policies. However, students should be aware that University employees, including instructors, may not be able to maintain confidentiality when it conflicts with their responsibility to report certain issues to protect the health and safety of MSU community members and others. As the instructor, I must report the following information to other University offices (including the Department of Police and Public Safety) if you share it with me:
- Suspected child abuse/neglect, even if this maltreatment happened when you were a child,
- Allegations of sexual assault or sexual harassment when they involve MSU students, faculty, or staff, and
- Credible threats of harm to oneself or to others.

These reports may trigger contact from a campus official who will want to talk with you about the incident that you have shared. In almost all cases, it will be your decision whether you wish to speak with that individual. If you would like to talk about these events in a more confidential setting you are encouraged to make an appointment with the MSU Counseling Center.

Questions or concerns: I want to see each of you succeed in this course. If you have any questions or concerns, please contact me and we can set up a time to talk. Please let me know as soon as possible if
you experience any problems in the course. By letting me know early, we can work out a plan to make sure you do not fall behind.

ASSIGNMENTS
Over the course of the semester, you will design a study to examine the relationship between two constructs of interest using a web-based survey. Each assignment builds on the earlier assignments, so please think carefully about each assignment; it will not be possible to change topics after the first assignment. It is possible to use these assignments as part of an MA thesis or other research project, but this requires a few extra steps. If you wish to do this, please let me know by February 11.

Hypotheses & Operationalization (15 points, due February 11) –
1. Select two constructs of interest that you believe are related.
2. Locate an existing scale operationalization of each construct. The scale must already exist; you may not develop your own (this is covered in PSY818). If you cannot locate a scale for your construct of interest, go back to step 1 or contact me.
3. Identify a variable that you believe will moderate the relationship between your two constructs. The moderator could be a demographic characteristic (e.g. gender, race), an ecological characteristic (e.g. the amount of diversity in the person’s neighborhood), or something else.
4. In up to 3 pages, state and justify your directed moderated hypothesis (e.g. X is positively (or negatively) associated with Y, but this relationship is strengthened (weakened) by M). Your justification should include references to relevant prior theoretical or empirical literature.
5. Include a copy of each scale at the end of your paper, then email as a single MS Word file to zpneal@msu.edu by 12:40pm on February 11.

Sampling (15 points, due February 25) –
1. Identify your population of interest. Later you will be asking members of this population to complete a web-based survey, so please make sure the population has access to the necessary infrastructure (e.g. internet, email, a computer).
2. Develop a strategy for drawing a probability sample within this population.
3. Draw a probability sample of 50 people from this population, or if the population is smaller than 100, draw a probability sample of 50% of the population. List each member of the sample in an Excel file with separate columns for first name, last name, and email address.
4. In up to 3 pages, explain how you completed steps 1-3 and why you made the decisions you did.
5. Email your paper and your sample excel file to zpneal@msu.edu by 12:40pm on February 25.

Draft Survey (20 points, due March 11) –
Build a survey in Qualtrics to collect data from your sample. At a minimum, your survey must:
1. Begin with an overview & informed consent
2. Collect both scales and data necessary for your moderator
3. Collect at least three additional demographic characteristics
4. Collect at least one open-ended question about your constructs of interest
5. End with a thank you page
Proofread and debug your survey using the “Preview” function in Qualtrics, then share your draft survey in Qualtrics with zpneal@msu.edu by 12:40pm on March 11. After sharing it, do not make any changes to your survey until you have received feedback.

Data Collection and Final Writeup (50 points, due April 22) –
1. Use Qualtrics to create an email distribution of your final survey to your sample.
2. Use Qualtrics to send a reminder email to non-respondents once a week for at least 2 weeks.
3. Close your Qualtrics survey and download the data.
4. In up to 5 pages, write a brief research report describing your study including:
   a. A description and rationale for your hypothesis
   b. A description of your sampling design
c. A description of your data collection, including your survey
d. A description of your data that includes (1) your response rate and (2) A table of descriptive statistics reporting the mean and standard deviation for each variable, and the inter-item reliability (i.e. Cronbach’s α) for each scale variable.
e. A test of your hypothesis and interpretation of your result
f. A discussion of your study’s limitations and ways a future study could be improved

5. Email your paper and data to zpneal@msu.edu by 12:40pm on April 22.

6. Make a brief (~10 minute) presentation of your design & findings to the class.

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<thead>
<tr>
<th>COURSE SCHEDULE</th>
<th>Date</th>
<th>Topic &amp; Readings</th>
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<tbody>
<tr>
<td></td>
<td>January 7</td>
<td>12:30 – 1:30: Postdoctoral Fellowships (PSY230)</td>
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<td>Overview, Introduction to Qualtrics</td>
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<td>January 14</td>
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<td><strong>Epistemology</strong></td>
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<td>Singleton &amp; Straits (Chapter 2 in 4th/5th/6th; Chapters 2 &amp; 3 in 3rd)</td>
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<td>January 21</td>
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<td>MLK Holiday – No class</td>
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<td>January 28</td>
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<td><strong>Design</strong></td>
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<td>Singleton &amp; Straits (Chapter 4 in 3rd/5th/6th; Chapter 3 in 4th)</td>
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<td>February 4</td>
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<td>12:30 – 1:30: Climate &amp; Inclusion (PSY230)</td>
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<td>Class rescheduled to 1:40 – 4:30</td>
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<td><strong>Measurement</strong></td>
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<td>Singleton &amp; Straits (Chapter 5 in 3rd/5th/6th; Chapter 4 in 4th)</td>
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### February 11

**Hypotheses & Operationalization due**

**Sampling**
Singleton & Straits (Chapter 6 in 3rd/5th/6th Edition; Chapter 5 in 4th Edition)


### February 18

**Surveys**
Singleton & Straits (Chapters 9 & 10 in 3rd/5th/6th; Chapters 8 & 9 in 4th)


Bring a copy of a survey or form you have recently had to complete.

Complete Qualtrics “Quick Start” webinar at:

### February 25

**Sampling due**

**Ethics**
Singleton & Straits (Chapter 3 in 5th/6th; Chapter 16 in 4th; Chapter 17 in 3rd)


Protection of Human Subjects, 45 C.F.R. § 46.

Complete Qualtrics “Advanced Survey Building” webinar at:

### March 4

Spring Break – No class

### March 11

12:30 – 1:30: Dr. Rick Sadler on GIS (PSY230)

**Draft survey due**

**Context**


### March 18

**Archival**
Singleton & Straits (Chapter 11 in 4th; Chapter 12 in 3rd/5th/6th)

Use it to get a demographic portrait of (a) the zipcode where you live now and (b) a zipcode where you have lived before. Bring a copy with you.
<table>
<thead>
<tr>
<th>Date</th>
<th>Event</th>
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<tbody>
<tr>
<td>March 25</td>
<td><strong>Experiments (Dr. Kas Anderson-Carpenter)</strong></td>
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<td>Readings TBA</td>
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<td>Singleton &amp; Straits (Chapters 6 &amp; 7 in 4th; Chapters 7 &amp; 8 in 3rd/5th/6th)</td>
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<tr>
<td>April 1</td>
<td>12:30 – 1:30: Applied Jobs (PSY230)</td>
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<td>Student MA Thesis Panel</td>
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<td>April 8</td>
<td>Writing</td>
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<td>Singleton &amp; Straits (Chapter 18 in 4th/5th/6th; Chapter 18 in 3rd)</td>
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<td>Review the (a) Aims &amp; Scope and (b) Submission Guidelines for a peer-</td>
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<td>reviewed journal in which scholars in your area regularly publish. Bring</td>
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<td>April 15</td>
<td><strong>Ethical Challenges (Dr. Rebecca Campbell)</strong></td>
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<td>Readings TBA</td>
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<tr>
<td>April 22</td>
<td><strong>Presentations; Final writeup due</strong></td>
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