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MED 231
An Introduction to Mixed Methods Research

Course Instructor

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Winter 2013:

Wednesdays 10:00 – 2:00

Room: TBD

I. Course Overview

This course will provide an overview of mixed methods research, with an emphasis on its application in public health research. Specific examples will be drawn largely from the fields of substance use and HIV research. The course will begin with a discussion of the history and philosophy of mixed methods research, and will maintain a focus on the epistemological underpinnings of both mixed methods designs and their component parts. Consideration will be given to a number of research traditions that can be subsumed under the general headings of “quantitative” and “qualitative” methods, including epidemiological surveys, in-depth qualitative interviewing, ethnography, social network analysis, and Geographic Information Systems (GIS). Methods for collecting, analyzing, integrating, and reporting data from multiple sources will be discussed. The course will have an applied focus and will include lectures, presentations of applied mixed methods research by guest experts, applied and methodological readings, and student presentations.

Prerequisites:

PH628 (Multivariate Statistics) or similar multivariate statistics or biostatistics course, subject to instructor approval (students should submit syllabus to instructors for approval)

Graduate-level qualitative research methods (submit syllabus to instructor for approval). If students have not taken a graduate level qualitative research methods course, they should register simultaneously for MED296 (Davidson; 2 units), which will provide an orientation to qualitative methods.

II. Student Learning Outcomes

By the end of the course, students will be able to:

1. Describe the epistemological or philosophical underpinnings of qualitative, quantitative, and mixed methods approaches
2. Determine if a mixed methods approach is suitable for answering their research questions
3. Demonstrate an understanding of the fundamental principles for designing mixed methods studies through the preparation of an NIH-style mixed methods research proposal
4. Evaluate the quality of findings from mixed methods research through critical discussion of required readings

III. Expectations, Course Requirements, and Grading

A. Expectations

1. Attendance
 - Class participation is critical and student involvement will help create a dynamic and stimulating environment.
 - Students are expected to attend every session; please consult with the instructor regarding absences. More than 2 absences are not permitted due to the loss of material/information associated with such absences; students missing more than 2 class sessions will be asked to withdraw from the course.

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- a. Note: An exception can be made with respect to medical conditions, as long as they are discussed with the instructor. Please consult with classmates for notes or other materials provided during the absence.
 - b. Note: Students missing class due to presentations at scientific conferences are expected to present to the class the week prior to the absence. Speakers will receive feedback regarding the structure and content of their presentation by classmates and the instructor.
- Timely arrival to the class is expected.

2. Creating a Respectful Classroom Environment

- A short break will be provided; please refrain from eating full meals during class as it can be distracting to students and guests.
- Use of laptops as it relates to course activities is permitted; otherwise, multitasking is distracting and disrespectful to classmates and instructors — please refrain from doing so.
- Any use of cell phones during class is not permitted; please turn cell phones off.

3. Academic Integrity

- UCSD Guidelines regarding academic integrity are applicable to this course.
- The UCSD Policy on Integrity of Scholarship is available here:
<http://students.ucsd.edu/academics/academic-integrity/policy.html>

UCSD notes: *"Integrity of scholarship is essential for an academic community. The University expects that both faculty and students will honor this principle and in so doing protect the validity of University intellectual work. For students, this means that all academic work will be done by the individual to whom it is assigned, without unauthorized aid of any kind."*

Academic misconduct is not just blatant cheating (e.g., copying off another student during an exam), but what you might have previously thought of as "minor cheating", for example: copying other students' papers or homework; copying or using old papers/report; working with others on individual assignments; forgetting to cite material you took from an outside resource; turning in work completed in total or part by another.

The Policy on Integrity of Scholarship (academicintegrity.ucsd.edu) lists some of the standards by which you are expected to complete your academic work, but your good ethical judgment (or asking the instructors for advice) is also expected, as we cannot list every behavior that is unethical or not in the spirit of academic integrity.

It is the expectation of the instructors of this course that all work turned in by a student was completed by that student, using his/her own words and ideas or otherwise attributing them to the writer from whom they were borrowed (using established citation formatting such as APA or similar). Plagiarism (of published or unpublished work, of work by a fellow student, faculty or any other author) will not be tolerated. Any copying or paraphrasing of another's words or ideas without citation is plagiarism and a violation of the UCSD standards of academic integrity. All suspicions of academic misconduct (including plagiarism) will be reported to the Academic Integrity Office according to university policy

Those students found to have committed academic misconduct will face administrative sanctions imposed by their college Dean of Student Affairs and academic sanctions imposed by the instructors in this course. The standard administrative sanctions include: the creation of a disciplinary record (which will be checked by graduate and professional schools); disciplinary probation; and attendance at an Academic Integrity Seminar (at a cost of \$75). Students can also face suspension and dismissal from the University; those sanctions are not at my discretion. Academic sanctions can range from an F on the assignment to an F in the class. The appropriate sanctions are determined by the egregiousness of the Policy violation. Students who assist in or are complicit with cheating could also be in violation of the Policy. Thus, students who become aware of their peers either facilitating academic misconduct or committing it should report their suspicions to the course instructors for investigation.

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B. Course Requirements & Grading

Students are responsible for completing all course readings and assignments by their assigned due dates. Assignments are due on the week they are noted on the syllabus. Grades are based on the quality and on-time submission/presentation of the course deliverables. There is a total of 100 points possible for the course.

1. Readings and in-class discussions (5 points) Students are required to complete weekly assigned readings and arrive to class prepared to critically discuss the week's readings. Each week will contain at least one reading that provides an example of a mixed methods study (i.e., an empirical reading). In the first week of the course, 1-2 students will be assigned to be discussion leader(s) for each week. The student discussion leader(s) will be responsible for briefly summarizing the week's empirical reading(s) with a focus on design issues, and leading a discussion of the main themes. **Credit will be earned by completing the readings and leading 1 discussion session. Each week students should send 1 question to the discussion leader about the week's empirical reading(s) no later than 1 day in advance in order to help facilitate the discussion.**
2. Research Proposal (60 points total – 10 points for completion of interim assignments, 50 points for final product) Students will prepare a 7-page, NIH-style research proposal similar to an NIH R36 Dissertation Grant application. The proposal will include: a specific aims page (including a clear statement of the research problem/questions/hypotheses), statement of significance and innovation, methods and data analysis plan, implications for public health and future directions. The proposal will be prepared in a series of stages, with components due throughout the quarter. The final proposal is due in Week 8 – at that time the proposal will be circulated to 1-2 student peer reviewers. After receiving feedback from the peer review, the final proposal is due to be submitted to the instructor on the Friday of finals week. See section D below for guidance on the final proposal requirements. **Late submissions of interim assignments and/or final product will result in a reduction of points.**
3. Student Presentations (20 points) – Students will be required to present components of their research proposal twice during the quarter. The first presentation will be on the significance and specific aims section of the research proposal. The second presentation will be on the entire final proposal. The purpose of the presentation is to provide an opportunity for students to practice presenting their ideas orally, and to elicit feedback from classmates on the research proposal. See section D below for guidance on the final presentation requirements. **Credit will be earned by completing the presentations.**
4. “Peer Review” (15 points) – Each student will conduct a mock “peer review” of up to two final research proposals prepared by their peers in the final weeks of the course. **Credit will be earned by completing a written peer review of the proposal(s) assigned to him/her.**

The final course grade will be determined using the following formula:

A \geq 90 points; B 80-89 points; C 70-79 points; D 60-69 points; F 60 points

In addition, Medical students must complete course and faculty evaluations of this and all School of Medicine courses in order to receive a grade. The identity of individual students will not be shared with the course instructors. The evaluation of the course and faculty will be coordinated through the Office of Educational Development and Evaluation (OEDE): <http://meded.ucsd.edu/ugme/oede/>. **This policy does not apply to graduate students.**

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C. Required Readings

Students are expected to complete the readings for each week prior to attending class. For example, if a reading is assigned for Week 3, it should be completed in advance of class in Week 3. Each week students should send 1 question to the discussion leader(s) about the week's empirical reading no later than 1 day in advance of class in order to help facilitate the discussion.

The required texts for this course are:

Creswell, John W. 2008. Research Design: Qualitative, Quantitative, and Mixed Methods Approaches. Sage Publications, Inc.; 3rd edition. ISBN-10: 1412965578

Creswell JW, Klassen AC, Plano Clark VL, Smith KC. Best Practices for Mixed Methods Research in the Health Sciences. Office of Behavioral and Social Sciences Research (OBSSR) National Institutes of Health. 2011.

- This reading will overlap substantially with the chapters from the text; however, it also contains material specific to preparing grant applications. It is assigned as a supplemental reading but should be referred to throughout the preparation of the proposal.

Other required readings will be available through the UCSD Biomedical Library or will be posted on the class website. The list of readings is available at the end of this syllabus in section F.

D. Guidance on Oral Presentation

Students should prepare no more than 12 slides for their final oral presentation.

Please practice your talk and ensure that it does not exceed **12 minutes**. Up to 5 minutes of discussion will follow each talk.

The presentation should follow a structured format and include the following headings:

- a. Title slide: Title of talk, name and degrees/contact information, affiliation, date, venue [1 slide]
- b. Significance/Innovation [1-2 slides]
- c. Specific Aims [1 slide]
- d. Research question and hypothesis [1 slide]
- e. Methods (sampling, data collection measures, analysis, integration of mixed methods) [3-4 slides]
- f. Limitations [1 slide]
- g. Implications for policy, programs, research or theory [1 slide]

2. Final Proposal

Students are expected to submit an NIH-style R36 research proposal that uses a mixed methods approach, integrating two methods that were discussed during the course. The proposal may not exceed 7 pages, following NIH formatting requirements (single spaced, 11-point Arial font, ½ inch margins on all sides). See <http://grants.nih.gov/grants/guide/pa-files/PAR-10-020.html> for instructions for preparing an R36 application.

All references in the proposal should be appropriately cited in the text and in the reference section. The reference section does not count towards the 7-page limit.

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The proposal should contain the following section headings. Page allocations are suggested, with the exception that the specific aims page must not exceed 1 page.

- A. Title (80 characters including spaces) & Specific aims – must not exceed 1 page
- B. Significance – ½ to 1 page
- C. Innovation – ½ to 1 page
- D. Methods – ~3 pages
 - a. Overview
 - b. Conceptual/theoretical model
 - c. Sampling plan
 - d. Data collection
 - i. Measures
 - e. Analysis
 - f. Plans for integration of mixed methods
- E. Limitations – ½ page
- F. Implications for Future Research – ½ page
- G. References (does not count towards 7 page limit, should be formatted using APA, NEJM, or similar formatting)

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E. Course Outline				
Week:	Lecture	Presentation	Readings (*denotes empirical reading)	Assignment Due and/or proposal benchmark
1. Jan 8	Overview of class Introduction of grant project	Qualitative methods		Literature review of proposed research topic.
2. Jan 15	Qualitative Methods (cont.)			Prepare Significance (do not submit)
3. Jan 22 [Karla at CEWG]	Guest Lecture: Holly Shakya, Ph.D. [title TBD]	Guest Lecture: Victoria Ojeda, Ph.D. [title TBD]	Creswell Ch. 1, 5, 6, 7	Due Friday of week 3: Significance statement
4. Jan 29	Conceptual/ Theoretical Models	In-class discussion of student projects	Creswell Ch. 3 Kelle 2001 Pollini 2010* Woolley 2009*	Due Friday week 4: Research questions/ specific aims Begin preparing methods section: <ul style="list-style-type: none"> • overview of research design, including theoretical or conceptual model • sampling, data collection, measures • analysis, power • integration of mixed methods
5. Feb 5	Mixed Methods Designs	Student Presentations I – Significance and Specific Aims/Research Questions	Creswell Ch.10 Sale 2002 Palinkas 2008* Slonim-Nevo 2009*	Finish writing methods section Write innovation section

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6. Feb 12	Integration/mixing quantitative and qualitative data	Guest lecture [TBD]	Bazeley 2009 Wagner 2011 Moffatt 2006*	Prepare implications and future directions, revise proposals based on feedback from presentations Due Friday week 6: Methods section
7. Feb 19	Validity and Reliability in Mixed Methods Research	Guest lecture [TBD]	Teddlie & Yu 2007 Onwuegbuzie 2006 Robertson 2013*	Revise proposals
8. Feb 26	Grantsmanship	Explanation of peer review process and assignment peer reviewers for student proposals	Creswell Ch. 4 Dickson 2011* Creswell 2011 (Suppl)	Due *WEDNESDAY* week 8: Final proposal sent to peers for review
9. March 5	Reporting and Evaluating Mixed Methods Research	In-class discussion of peer review feedback (Mock study section) Peer reviewers should submit written comments to study PI at the start of class	Sandelowski 2000 Edmeades 2010*	Due ***IN CLASS*** submit written peer-review comments to study PI at beginning of class Set up one-on-one meetings w/ instructors, as needed Revise proposals
10. March 12	Summary of a MM research proposal	Student Presentations – Final Proposal	Carr 1994 Christensen 2011* STROBE (Suppl) West 2000 (Suppl)	
11. March 19	Finals week		None	Due Friday of Finals week: Final proposal

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F. Weekly Reading Assignments	
Week	Reading
4	Kelle U. Sociological Explanations between Micro and Macro and the Integration of Qualitative and Quantitative Methods. <i>Forum: Qualitative Social Research</i> . Feb 2001;2(1) Art 5.
4	Pollini RA, Lozada R, Gallardo M, et al. Barriers to Pharmacy-Based Syringe Purchase Among Injection Drug Users in Tijuana, Mexico: A Mixed Methods Study. <i>AIDS and Behavior</i> . Jun 2010;14(3):679-687. PMID: 20300820
4	Woolley CM. Meeting the Mixed Methods Challenge of Integration in a Sociological Study of Structure and Agency. <i>J Mix Method Res</i> . Jan 2009;3(1):7-25. DOI: 10.1177/1558689808325774
5	Palinkas LA, Schoenwald SK, Hoagwood K, et al. An ethnographic study of implementation of evidence-based treatments in child mental health: First steps. <i>Psychiat Serv</i> . Jul 2008;59(7):738-746. PMID: 18586990
5	Slonim-Nevo V, Nevo I. Conflicting Findings in Mixed Methods Research An Illustration From an Israeli Study on Immigration. <i>J Mix Method Res</i> . Apr 2009;3(2):109-128. DOI: 10.1177/1558689808330621
5	Sale JE, Lohfeld LH, Brazil K. Revisiting the quantitative-qualitative debate: Implications for mixed-methods research. 2002. <i>Quality & Quantity</i> . 36:43-53.
6	Bazeley P. Editorial: Integrating Data Analyses in Mixed Methods Research <i>Journal of Mixed Methods Research</i> 2009; 3; 203 DOI: 10.1177/1558689809334443
6	Wagner, K. D., Davidson, P. J., Pollini, R. A., Strathdee, S. A., Washburn, R., & Palinkas, L. A. Reconciling Incongruous Qualitative and Quantitative Findings in Mixed Methods Research: Exemplars from Research with Drug Using Populations. <i>International Journal of Drug Policy</i> . 2011 23(2012), 54-61. doi:10.1016/j.drugpo.2011.05.009
6	Moffatt S, White M, Mackintosh J, Howel D. Using quantitative and qualitative data in health services research - what happens when mixed method findings conflict? [ISRCTN61522618]. <i>BMC Health Services Research</i> . Mar 8 2006;6. PMID: 16524479
7	Teddle C, Yu F. Mixed Methods Sampling A Typology With Examples. <i>J Mix Method Res</i> . Jan 2007;1(1):77-100. DOI: 10.1177/2345678906292430
7	Onwuegbuzie JA, Johnson RB. The Validity Issue in Mixed Research. <i>Research in the Schools</i> . Spring 2006;13(1):48-63.
7	Robertson AM, Syvertsen JL, Rangel G, Martinez G, Palinkas LA, Stockman JK, Ulibarri MD, Strathdee SA. Acceptability of vaginal microbicides among female sex workers and their intimate male partners in two Mexico-U.S. border cities: a mixed methods analysis. <i>Global Public Health</i> (2013).
8	Dickson VV, Lee CS, Riegel B. How Do Cognitive Function and Knowledge Affect Heart Failure Self-Care? <i>J Mix Method Res</i> . Apr 2011;5(2):167-189. DOI: 10.1177/1558689811402355
8	Creswell JW, Klassen AC, Plano Clark VL, Smith KC. Best Practices for Mixed Methods Research in the Health Sciences. Office of Behavioral and Social Sciences Research (OBSSR) National Institutes of Health. 2011.
9	Sandelowski M. Combining qualitative and quantitative sampling, data collection, and analysis techniques in mixed-method studies. <i>Research in Nursing & Health</i> . Jun 2000;23(3):246-255. PMID: 10871540
9	Edmeades J, Nyblade L, Malhotra A, MacQuarrie K, Parasuraman S, Walia S. Methodological Innovation in Studying Abortion in Developing Countries: A "Narrative" Quantitative Survey in Madhya Pradesh, India. <i>J Mix Method Res</i> . Jul 2010;4(3):176-198. DOI: 10.1177/1558689810365699

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10	Carr LT. The Strengths and Weaknesses of Quantitative and Qualitative Research - What Method for Nursing. <i>J Adv Nurs</i> . Oct 1994;20(4):716-721. PMID: 7822608
10	Christensen P, Mikkelsen MR, Nielsen TAS, Harder H. Children, Mobility, and Space: Using GPS and Mobile Phone Technologies in Ethnographic Research. <i>J Mix Method Res</i> . Jul 2011;5(3):227-246.DOI: 10.1177/1558689811406121
10	STROBE - A checklist to Strengthen the Reporting of Observational studies in Epidemiology for cohort, case-control, and cross-sectional studies. Available at: http://www.strobe-statement.org/index.php?id=available-checklists
10	West R. A checklist for writing up research reports. <i>Addiction</i> . Dec 2000;95(12):1759-1761. PMID: 11177490