
EDUC 6040

Applied Research Methods

Fall Semester 2017

Instructor: Michael Oliva
Office Location: STEM 244
Office Hours: By appointment only
Email: Michael.Oliva@Aggiemail.usu.edu
Class Time: Thursday 3:30-6:15pm.
Class Location: University Reserve | Room 103

Contact Policy: I am accessible to students by email or through Canvas. If you need a quick response, please e-mail me. I tend to check Canvas in the early afternoon and evenings.

Canvas: Please check Canvas each day for course updates, assignments, and grades.

Required Reading Materials

Creswell, J. W. (2013). *Research design: Qualitative, quantitative, and mixed methods approaches (4th Ed)*. Sage publications.

Additional Readings: Additional readings will be assigned throughout the semester and will be available via Canvas.

Catalog Course Description: This course is designed to introduce graduate students to the information and skills needed to read and critique research in education, psychology, and other social sciences. Students will develop a basic understanding of research perspectives, methods, statistical analysis, and quantitative and qualitative research designs.

Course Content: Reading assignments will be given each week, and **students will be expected to read them thoroughly BEFORE CLASS** and prepared to discuss the material contained in the textbook and other course material during our class discussion. Students will also have a variety of practical hands-on experiences and activities designed to master the course material. The course objectives will be accomplished through course readings and discussion, writing assignments, quizzes, and exams.

Course Objectives: The objectives for PSY/EDUC 6040 have been agreed upon by the department heads in the College of Education. The student will be able to do the following:

1. Use the reference area of the library, interlibrary loan services, and computerized databases to locate relevant articles and documents on a selected topic.
2. Use APA guidelines to appropriately cite and reference relevant articles in written work.
3. Describe the relationships among hypotheses, measures, and analysis procedures in a research proposal.
4. Define the major threats to the internal and external validity of an experiment.
5. Critically read published empirical studies to:
 - a. Identify authors' research questions or objectives.

- b. Specify authors' conclusions.
 - c. Identify the major threats to internal validity and discuss the validity of the authors' conclusions in light of those threats.
 - d. Suggest improvements in the design of critiqued studies to remedy the perceived threats to internal or external validity.
6. Understand research ethics and protection of human subjects
 7. Define target and accessible populations and explain the strengths and weaknesses of different sampling approaches and important considerations such as sample size, sampling bias, and external validity in sampling decisions.
 8. Define and assess independent as well as dependent variables.
 9. Understand the issues related to collecting research data using tests, questionnaires, interviews, observation, and content analyses.
 10. Understand test validity and reliability and the importance of those concepts when conducting research.
 11. Understand the differences among nominal, ordinal, interval, and ratio data and how these differences influence the selection of appropriate statistical procedures.
 12. Understand the differences between descriptive and inferential statistics.
 13. Understand the difference between statistical and practical significance including effect size
 14. Understand approaches to take when analyzing qualitative data including computer software that can support qualitative analysis
 15. Describe the methods and tools of different research designs:
 - a. Experimental and quasi-experimental research
 - b. Causal-comparative and correlational research
 - c. Survey research
 - d. Single-case research
 - e. Case study research
 - f. Ethnographic research
 - g. Phenomenological research
 - h. Grounded theory research
 - i. Participatory action research
 - j. Historical-narrative research
 - k. Mixed methods research
 16. Understand strategies for writing research results in a way that improves its utilization

Grading and Evaluation: Your grade for this course will be calculated as detailed below.

Percentage	Grade
93 - 100	A
90 - 92.99	A-
87 - 89.99	B+
83 - 86.99	B
80 - 82.99	B-
77 - 79.99	C+
73 - 76.99	C
70 - 72.99	C-
67 - 69.99	D+
63 - 66.99	D
0 - 62.99	F

Evaluation Activity	Points
Discussion Questions (10 total)	100
Journal Article Assignments (4 total)	100
Research Article Presentation	75
Article Analysis – Cook & Campbell	50
Citi Training (Human Subjects Research)	25
Final Exam	100
Total Points	450

Discussion Questions: There will be discussion questions for each of the chapters in the text. Discussion questions are due Wednesday at 12pm preceding the date that we will first discuss that chapter in class. Discussion questions should be no longer than two pages double spaced. Questions will be graded based on effort and thoughtfulness as opposed to “right or wrong.”

Journal Article Assignments: There will be four assignments that require you to read a journal article and analyze how it relates to the content of its associated chapter. The journal article will be pre-selected and posted on Canvas along with questions. Each assignment is limited to three pages double spaced.

Research Article Presentation: Each student will present an empirical research article from their field to the class. The presentation should cover the following aspects of the article and should be no more than 15 minutes in length:

- Purpose of the study
- Literature review (briefly)
- Research methods (including sample, tools, etc.)
- Findings
- Implications

Article Analysis The ability to critique and critically evaluate the adequacy of completed research is an essential skill. During the semester, students will do a short written critique (no more than four pages double spaced) of an empirical research article of their choosing. Students will focus on the threats to validity as discussed in Cook & Campbell (1979).

Exams: There will be one exam during the course. The final will be cumulative. Specific date and time for the final will be announced well in advance. There will be no make-up exams.

Late Assignments will receive an immediate deduction of half the available points and will only be accepted within a day (or 24 hours) after the assignment was due, except in the case of a properly documented, university-approved, emergency. In the case of a properly documented, university-approved emergency, students must contact me and make necessary arrangements to submit their assignment at a later date.

Learning Modules: Learning Modules have been created for each day of class and are accessible to students on Canvas. Each Learning Module will include lecture presentations, assignments, links to the discussion and assessment, and other useful course information. Please check the Learning Module at the beginning of each week, as it will help guide you through the course material and assignments.

Miscellaneous

Changes in Assignments and Schedule: The instructor reserves the right to make changes to this syllabus at any time. Changes will be announced in class and posted on Canvas. The included schedule and all deadlines are extremely tentative and will be adjusted as needed.

Students Needing Assistance with the English Language: Several assignments in this course require English composition. If you feel you need assistance, please visit the USU Writing Center. They have tutors available to help: <http://writingcenter.usu.edu>.

Academic Integrity - "The Honor System": Each student has the right and duty to pursue his or her academic experience free of dishonesty. The Honor System is designed to establish the higher level of conduct expected and required of all Utah State University students.

The Honor Pledge: To enhance the learning environment at Utah State University and to develop student academic integrity, each student agrees to the following Honor Pledge: "I pledge, on my honor, to conduct myself with the foremost level of academic integrity." A student who lives by the Honor Pledge is a student who does more than not cheat, falsify, or plagiarize. A student who lives by the Honor Pledge:

- Espouses academic integrity as an underlying and essential principle of the Utah State University community;
- Understands that each act of academic dishonesty devalues every degree that is awarded by this institution;
- Is a welcomed and valued member of Utah State University.

Plagiarism: Plagiarism includes knowingly "representing, by paraphrase or direct quotation, the published or unpublished work of another person as one's own in any academic exercise or activity without full and clear acknowledgment. It also includes the unacknowledged use of materials prepared by another person or agency engaged in the selling of term papers or other academic materials." The penalties for plagiarism are severe. They include warning or reprimand, grade adjustment, probation, suspension, expulsion, withholding of transcripts, denial or revocation of degrees, and referral to psychological counseling.

Sexual Harassment: Sexual harassment is defined by the Affirmative Action/Equal Employment Opportunity Commission as any "unwelcome sexual advances, requests for sexual favors, and other verbal or physical conduct of a sexual nature." If you feel you are a victim of sexual harassment, you may talk to or file a complaint with the Affirmative Action/Equal Employment Opportunity Office located in Old Main, Room 161, or call the AA/EEO Office at 797-1266

Students with Disabilities: Qualified students with disabilities may be eligible for reasonable accommodations. If a student has a disability that will likely require some accommodation by the instructor, the student must contact the instructor and document the disability through the Disability Resource Center (797-2444 voice, 797-0740 TTY, or toll free at 1-800-259-2966; Room 101 of the University Inn), preferably during the first week of the course. Any request for special consideration relating to attendance, pedagogy, taking of examinations, etc., must be discussed with and approved by the instructor. In cooperation with the Disability Resource Center, course materials can be provided in alternative format, large print, audio, diskette, or Braille."

Withdrawal Policy and "I" Grade Policy: Students are required to complete all courses for which they

are registered by the end of the semester. In some cases, a student may be unable to complete all of the coursework because of extenuating circumstances, but not due to poor performance or to retain financial aid. In such cases an 'I' will be submitted as the grade for the semester. The term 'extenuating' circumstances includes:

- (1) incapacitating illness which prevents a student from attending classes for a minimum period of two weeks,
- (2) a death in the immediate family,
- (3) financial responsibilities requiring a student to alter a work schedule to secure employment,
- (4) change in work schedule as required by an employer, or
- (5) other emergencies deemed appropriate by the instructor.

Tentative Course Schedule:

Week	Topic	Chapter to be read and other Assignments
Week 0	Course Intro	None
Week 1	The Selection of a Research Approach	Ch. 1, Study Questions
Week 2	Review of the Literature	Ch. 2, Study Questions
Week 3	The Use of Theory	Ch. 3, Study Questions Ch. 3, Journal Article #1
Week 4	Writing Strategies and Ethical Considerations,	Ch. 4, Study Questions
Week 5	The Introduction	Ch. 5, Study Questions
Week 6	The Purpose Statement	Ch. 6, Study Questions
Week 7	Research Questions and Hypotheses	Ch. 7, Study Questions
Week 8	Quantitative Methods	Ch. 8, Study Questions
Week 9	Quantitative Methods, cont'd.	Ch. 8, Journal Article #2
Week 10	Qualitative Methods	Ch. 9, Study Questions
Week 11	Qualitative Methods, cont'd	Ch. 9, Journal Article #3
Week 12	Mixed Methods Procedures	Ch. 10, Study Questions, Ch. 10, Journal Article #4
Week 13	Final Exam	