The Program of Social and Organizational Psychology
Teachers College, Columbia University
Course Syllabus-Spring/Fall
Spring 2020

Course Prefix and Number: ORLJ 4009

Course Title: Understanding Behavioral Research

Instructor's Name, Address and Phone Number:

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Teaching Assistant

Xiaoxue Du
Doctoral Student and Senior Research Assistant, AERI
Contact Information: See Canvas

Required Texts:

1. Sekaran, U. & Bougie, R. (2016). *Research methods for business: A skill-building approach* (7th ed.). West Sussex, UK: Wiley. [RMB]
2. Creswell, J.W. & Creswell, J. D. (2018). *Research Design: Qualitative, Quantitative, and Mixed Models Approaches* (5th ed.). Thousand Oaks, CA: Sage Publications.[QQMM-selected chapters]

NOTE: Latest editions of the above two textbooks will be used
Supplementary handouts, articles, or excerpts of research reports may be distributed or recommended for reading at particular times during the course.

Course Purposes:

The effective application of research-based evidence requires an understanding of the research methods and study designs that produced the results/findings. The purpose of this course is to provide you with an overview of major research methods useful in designing and executing studies in applied settings in business, psychology, education and the health professions. The main aim of the course is to develop critical consumers of research that utilizes either quantitative, qualitative, or mixed-methods and multi-method designs. The course will highlight criteria to distinguish between sound and poorly-conducted research. The targeted learning outcome is to help participants read and interpret informal or published research critically to support evidence-based practices in organizations, communities and other applied settings.

Specific Course Objectives/Targeted Learning Outcomes:

Following course completion, students should be able to:

1. Describe the main characteristics of *basic* or *fundamental* research endeavors, contrasted with *applied* and *field* research studies.

2. Distinguish between *conclusion-oriented research* and *decision-oriented research*.
3. Formulate/state research questions and/or hypotheses to guide various types of studies.
4. Align particular research questions to appropriate research methods that fall under a *Study Design Continuum* (ORLJ 4009 Map) of Quantitative, b) Qualitative and c) Mixed-Methods designs.
5. Summarize the origins, characteristics, advantages and disadvantages of major quantitative, qualitative, and mixed-methods *research designs* useful for designing different types of studies.
   -Experimental/Quasi-experimental Designs
   -Non-Experimental (Observational) Designs, such as, survey research methods, secondary analysis of large databases, and other "unobtrusive" research designs.
   -Interview-based Research, Case Studies, Ethnographic Research, and other Qualitative research methods
   -Different Types of Mixed-method Designs
6. Develop and display conceptual frameworks (*logic models*) graphically to guide research studies that aim to draw causal and correlational inferences/conclusions.
7. Define independent, dependent, mediator and moderator variables in conceptual frameworks for Quantitative designs.
8. Summarize basic measurement concepts that apply in quantitative research studies
   a. Develop/select instruments to measure various constructs/variables.
   a. Define and distinguish between the concepts of validity, reliability and utility
   b. Interpret validity and reliability information for variable/construct measures specific to research studies.
9. Describe common types of sampling designs (probability and non-probability samples) and their applications.
10. Describe common methods of data collection and analysis for quantitative, qualitative, and mixed-methods designs.
11. Describe ethical principles and established guidelines for conducting research.
12. Conduct a critical review of a selected research article/report, using appropriate criteria for evaluating quantitative, qualitative, and mixed-methods research studies.

Grading:

The course grade will be proficiency-based. The cut points below will apply for marking categories.

A 90-100%
B 80-89%
C 70-79%

Test/Project	Weight
1. Exam 1: Take home, midterm (includes short answer & multiple choice items yielding an individual grade based on chapters, lectures/sessions and objectives covered in first half of semester)	33%
2. Exam 2: Take home, end of term (includes short answer & multiple choice items yielding an individual grade based on chapters and objectives covered in second half of semester)	33%
2. Critique of a research article/report: Team presentation, end of term (Team grade)	33%

Course Delivery:

The course will be delivered with a mixture of lectures, class discussions, and group work. Readings outside the books may be posted on Canvas before particular sessions. After the first session, please purchase your textbooks. Come prepared to discuss, engage, work, and enjoy the class as we learn

together.

Although what you gain from the course lies in your hands, my philosophy is to help all students learn and appreciate the relevance of the subject matter in your professional and academic fields. Please provide feedback to me as the course progresses to help me tailor the sessions to meet your needs.

Caveats: Your attendance, punctuality, engagement and regularity in submitting all assignments are important to your success. **Please plan to attend class except under extenuating circumstances. Do keep me informed about your needs.** More than **two** unexcused absences or repeated lapses without notice will result in point penalties that will be reflected in your overall course grade. I will strive to apply criteria for grading in a transparent, standardized and fair manner for all students.

INDIVIDUALS WITH DISABILITIES

The College will make reasonable accommodations for persons with documented disabilities. Students are encouraged to contact the Office of Access and Services for Individuals with Disabilities for information about registration (166 Thorndike Hall). The College states that services are available only to students who are registered and submit the appropriate documentation. As your instructor I will be happy to discuss specific needs with you as well.

Religious Observances:

The College policy on honoring religious holidays will be followed. Please keep me informed.

Please note the College's zero tolerance policy on plagiarism.

Weekly Session Outline: See attached

Weekly Outline: Minor changes may occur to this general outline depending on the class' pace.

Session and Day		**Topics**	**Readings**
1 1/28		What is research? Hallmarks of scientific research Applied research vs. basic or fundamental research Ethics in doing research Introduction to types of research methods and study designs (quantitative, qualitative, and mixed-methods designs) *ORLJ 4009 Study Design Map/Continuum* Key concepts: Distinctions-different research designs	Chapters 1-2 (RMB)-review for next week Chapter 1 (QQMM) review for next week Practice
2 2/4		Hallmarks of disciplined inquiry (continued)— conclusion-oriented and decision-oriented inquiry; philosophical bases for different research traditions; the "Research Process" in different traditions of inquiry; role of the researcher; literature reviews; defining the research problem, research purpose and questions; matching research questions with quantitative, qualitative and mixed methods designs Key concepts: constructs vs. variables; conclusion-oriented vs decision-oriented inquiry; applied research; field research; basic or fundamental research; research process--frameworks; research questions	Chapters 1-2, Chapter 6 (RMB) Chapter 1, Chapter 6 (QQMM) Handouts/practice
3 2/11		Quantitative Study Designs (see Map of Study Designs) Stating research questions and/or hypotheses to guide *experimental, quasi-experimental and non-experimental* studies; linking research questions with specific quantitative study designs/research methods; developing *conceptual frameworks and logic models* to guide quantitative research Key Concepts: Formulating research questions and/or hypotheses for quantitative study designs; logic models	Chapters 3-5 (RMB) Chapter 6 (RMB) Handouts/practice
4 2/18		Quantitative Study Designs (see Map of Study Designs) Developing *conceptual frameworks and logic models* to guide quantitative research (continued) Linking research questions with variables in logic models Key Concepts: logic models, independent variables, dependent variables, mediator and moderator variables in quantitative designs	Chapters 3-5 (RMB) Chapter 6 (RMB) Plus: Chapter 3, pp.49-60 (QQMM) Handouts/practice
5 2/25		Quantitative Study Designs (see Map of Study Designs) Experimental Designs Quasi-experimental Designs Non-experimental (Observational) Designs-Ex post facto or causal comparative designs Key Concepts: internal validity, external validity, measurement validity (construct measures), design notation, causal inferences, correlational inferences	Chapter 10 (RMB) Plus: Chapter 8, pp.161-175 (QQMM) Handouts/practice Enrichment: Campbell & Stanley (1968)

6 3/3		Quantitative Study Designs (see Map of Study Designs) Non-experimental (Observational) Designs- Surveys and opinion polls: descriptive vs. relational surveys; cross-sectional, longitudinal, retrospective studies Secondary analysis of existing datasets Key Concepts: descriptive inferences, correlational inferences, generalizability, instrumentation	Chapter 9 (RMB) Handouts/practice Plus: Chapter 8, pp.147-160 (QQMM) Enrichment-Chatterji-2010. *Evaluation Methodology*
7 3/10		Qualitative Research Designs (see Map of Study Designs) Interviews, Participant Observation, Case Study Methods, Ethnography Action Research—special category **EXAMINATION 1 (distributed)**	Chapters 7-8 (RMB) Plus: Chapter 9 (QQMM) Handouts/practice
8 3/17		**Spring Break**	
9 3/24		Mixed-Methods Designs (see Map of Study Designs) Convergent, Sequential (exploratory or explanatory), Complex Mixed-Methods Research Designs **EXAMINATION 1 DUE BACK**	QQMM-Chapter 10 Chapters 7-8 (RMB) Handouts/practice
10 3/31		Mixed-Methods Designs contd. (see Map of Study Designs) Extended-Term Mixed Methods designs- Illustration of a mixed method design for making causal inferences Evidence-based practices (EBP) Evidence debates and evidence hierarchy Are RCTs the gold standard?	Enrichment: *Journal of Applied Behavior Analysis* article; Chatterji, (2016), *Evaluation and Program Planning* paper:
11 4/7		Sampling Techniques (for quantitative and qualitative research designs)	Chapter 13 [RMB] Plus: See selected sections of Chapters 8-9 of QQMM on sampling
12 4/14		Measurement of constructs/variables in quantitative designs Key concepts: Instrument types, validity, reliability and utility of construct measures The research report—what to look for in different study types—group work **NOTE: Articles for team presentations posted on Canvas after class**	Chapter 12 [RMB] *Enrichment*: Chatterji (2003)-Chapters 1, 3-4, 13
13 4/21		(**Note: Prof. Chatterji will be away at AERA and NCME; Xiaoxue Du will hold class)** **Team work:** Select team members Select article (of 3) to critique Develop criteria for critiquing that type of study in your team using all assigned readings; review/critique article	SEE: Three optional articles for team critiques with scoring rubrics on Canvas
14 4/28		Data collection techniques (general overview only) -Quantitative and qualitative methods Data analysis techniques (general overview only) -Quantitative studies **EXAMINATION 2 (distributed)**	Chapters 14-16 [RMB] QQMM-Supplementary readings

15 5/5		Data analysis techniques (general overview only) - qualitative and mixed methods **ASSIGNMENT 3 (Distributed; critique of a research article rubric—team presentations next week!)**	Chapter 14-16 [RMB] QQMM-Supplementary reading
16 5/12 (Last day of class)		Team presentations **ASSIGNMENT 3 DUE** **EXAMINATION 2 (DUE)** Critiquing research articles	Draw on all assigned readings