

USC Rossier School Of Education - Fall 2017
EDUC 570 Research Methods and Data Analysis for Counselors
Instructor: Ruth H. Gim Chung, Ph.D.

Class Time and Place: Tuesdays 4:00-6:40 (WPH 205) and Wednesdays 4:00-6:40pm (103)

Office Hours: Tuesdays and Wednesdays 2:30-4pm

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Overview of Course

As emerging leaders in their profession, graduates of USC's MFT program will be equipped with the knowledge and skillset to become good consumers of research. They are to build a strong foundation of systematic inquiry in their practice as well as everyday life and apply the critical stance of science to determine credible sources of knowledge to inform their practice. To this end, the specific content of the course includes overview of research methods both quantitative and qualitative, different methods of data collection, survey design, and statistical analysis and interpretation of the results.

Course Objectives

1. Demonstrate knowledge of different research designs and the appropriateness of each in addressing different types of research questions
2. Understand similarities and differences between qualitative and quantitative approaches to inquiry.
3. Know how to conduct basic observations and interviews.
4. Know the basic principles of survey design.
5. Know scales of measurement and how instruments are constructed, as well as the criteria for evaluating and selecting instruments.
6. Know the properties and uses of the normal distribution
7. Understand hypothesis testing
8. Understand the nature of descriptive and inferential statistics and how to use them.
9. Generate basic descriptive statistics
10. Interpret various types of inferential statistics
11. Be familiar with how to perform basic statistical analysis on SPSS software
12. Be aware of various ethical concerns inherent in designing research studies

Required Texts

Salkind, N. J. (2017). *Statistics for people who (think they) hate statistics* (6th ed.). Upper Saddle River, NJ: Sage.

Creswell, J.W. (2009). *Research design: Qualitative, quantitative, and mixed methods approaches*. Thousand Oaks, CA: Sage Publications.

Recommended Text

American Psychological Association. (2010). *Publication manual of the American Psychological Association* (6th ed.). Washington, DC: Author.

Required Readings (Available on Blackboard)

AERA, (2006). Standards for reporting on empirical social science research in AERA publications. *Educational Researcher*, 35(6), 33-40.

Atkinson, D. & Gim, R. H. (1989). Asian American cultural identity and attitudes toward Mental health services. *Journal of Counseling Psychology*, 36, 209-212.

Caplan, P. J., & Ford, J. C. (2014). The voices of diversity. Working Paper of the Carr Center for Human Rights Policy. Harvard Kennedy School.
<http://www.hks.harvard.edu/centers/carr/research-publications/carr-center-working-papers-series/caplan-and-ford.-%22the-voices-of-diversity-%22>

Chung, R. H. G. (2001). Gender, ethnicity, and acculturation in intergenerational conflict of Asian-American college students. *Cultural Diversity and Ethnic Minority Psychology*, 7, 376-386.

Chung, R. H. G., Kim, B. S. K., & Abreu, J. (2004). Asian American multidimensional acculturation scale: Development, factor analysis, reliability, and validity. *Cultural Diversity and Ethnic Minority Psychology*, 10, 66-80.

Ford, M. P. & Hendrick, S. S. (2003). Therapists' sexual values for self and clients: Implications for practice and training. *Professional Psychology: Research and Practice*, 34, 80-87.

Patton, L. D. (2009). My sister's keeper: A qualitative examination of mentoring experiences among African American women in graduate and professional schools. *The Journal of Higher Education*, 80(5). 510-537.

Pew Research Center. (2015). From Telephone to the Web: The Challenge of Mode of Interview Effects in Public Opinion Polls

Additional articles to be added for classroom exercises.

Course Policy and Guidelines

Grading Range

Final grade will be assigned based on the following range based on total points possible (100).
A 94-100; A- 90-93; B+ 87-89; B 84-86; B- 80-83; C+ 77-79; C 74-77; C- 70-73.

Detailed notes on course policy and grading guidelines are provided at the end of the syllabus.

Course Requirements

A. Class participation (10%)

Attendance and participation are essential to the collaborative learning process. Students are expected to come to class having completed the assigned readings for the week and be prepared to discuss the material and participate in class activities. Evaluation for this portion is a combination of attendance, participation, and refraining from distracted behavior that hinders one's own learning experience as well as that of others. Detailed rubric for this portion of the grade is provided under *Course Notes*.

B. Quizzes (20%)

Three quizzes will be administered at the beginning of the designated classes. These quizzes are intended to serve as formative assessment and review of main concepts leading up to the final. (5-7% each)

C. Observation, Interview, and Survey Projects (20%) – PAIRED PROJECTS

1. **Observation:** Conduct a 30-minute observational project around a research question of interest and take field notes on the observation. Submit the question with a summary of field notes on the observation as well as a brief reaction to the exercise. (5%)
2. **Interview:** Define an appropriate research question that is QUALITATIVE in nature. Develop an interview protocol and interview two different subjects (1 interviewee per person). Submit interview protocol with brief summary and reaction to the exercise. (7%)
3. **Survey:** Working with a partner, develop a 7-10 item survey on a CONSTRUCT of your choice (such as attachment, friendship, self-esteem, etc.) incorporating principles of good survey construction covered in class. Administer the survey to 2-3 people and solicit their feedback. Submit the survey with observation and reaction to the exercise. (8%)

D. Group Research Proposal (20%)

Work in groups of no more than 4 to develop and present an overview of a proposed study in the form of a powerpoint presentation. The approximately 12-slide presentation is similar in content and structure to that of thesis proposal defense. Detailed guidelines for the proposal are provided.

E. Final Exam (30%)

An overall exam will assess mastery of key concepts covered in class. The exam will be based on a combination of objective-type and short-answer questions as well as application and evaluation items to test for understanding and integration. The quizzes are intended to serve as reviews for the exam.

EDUC 570 Fall 2017 - COURSE SCHEDULE

<u>Week & Date</u>	<u>Topic & Assignments Due</u>	<u>Reading</u>
1 8/22-23	Nature of science and inquiry	Salkind 1; Creswell 1
2 8/29-30	Overview of approaches to inquiry Quantitative methods Form project and presentation groups	Salkind 7; Creswell 3, 5, 6, 7 Atkinson and Gim (1989) AERA (2006)
3 9/5-6	Qualitative methods Conducting observations and interviews	Creswell 9, Skim Patton (2009) Review Creswell 3, 5, 6, 7
4 9/12-13	Measurement and instruments DUE: Observation project	Salkind 5 & 6, Chung (2001)
5 9/19-20	Conducting surveys DUE: Interview project	Creswell 8 (up to p. 166) Caplan & Ford (2014); Pew (2015)
6 9/26**	BOTH sections will meet on Tuesday at 4pm Descriptive stats Quiz 1: Week 1-2 & 5	Salkind 2 & 3 Article TBD
7 10/3**	BOTH sections will meet on Tuesday at 4pm Probability and significance testing DUE: Survey project	Salkind 8 & 9
8 10/10-11	Research design - flipped class Quiz 2: Weeks 6-8 DUE: Group research proposal topic by email	Creswell 8 (from p 167 to end)
9 10/17-18	Z and T tests	Salkind 10-12
10 10/24-25	Anova/Manova	Salkind 13, 14, 18; Article TBD
11 10/31-11/1	Correlation and regression	Salkind 15 & 18; Article TBD
12 11/7-8	Chi square and non-parametric tests Ethics in research, article critique Quiz 3: Weeks 9-11	Salkind 17; Creswell 4 Ford & Hendrick (2003)
13 11/14-15	Group Project Presentations Email presentation to instructor before class.	
14 11/21-22	Statslab	Salkind 19-21, Appendix A
15 11/28-29	Research literacy and conclusion	

Final Exam: Wednesday, December 6, 4-6:40 pm in B49.

Guidelines for Conducting Observations

The purpose of this project is to introduce you to the method of conducting observations as a method of data collection. Find a partner and work in pairs on this project.

1. Select an appropriate observational question to address in this project.

The observational question should be appropriate to the limited scope of this exercise. DO NOT propose a hypothesis or seek to test one. Rather, simply state an observational question like the ones below.

Some sample questions:

- At a 4-way stop sign, what kind of drivers/cars roll through the intersection?
- What forms of distractions are students engaging in a classroom?
- In a small social gathering, how does the host/hostess connect with the guests.
- How much do strangers interact in an elevator?
- What kind of people and in contexts do people open or hold doors for another?
- What percentage of USC students on bicycles use the bike lanes down Trousdale?

2. Conduct the observation and take detailed field notes.

- a) Conduct 2 observations for 30 minutes each. This can be either 1 separate observation by each person or two observations if done together.
- b) Think through what kind of behaviors will be targeted, how they will be coded and recorded, where will you position yourself physical in the space, etc. Anticipate recording method, needs, and challenges.
- c) Quality of the observations is contingent on detail and accuracy of the notes. Try to capture as rich and accurate detail as you can in the moment without overly editing/summarizing or synthesizing the data. That is to be done after the observation. Note an extraneous circumstances and your positionality as contextual information for the data observation.

3. Submit a JOINT 3-pages (max) single or double spaced report (no title page or references needed) that contains the following:

- a) Description and summary of the observations. (1 page, 2 points)
 - Purpose of the observation
 - Setting, context, population
 - Summary of observation data and conclusion
- b) Reflection on the experience (1 page, 2 points)
 - What is your reaction to the experience? What did you learn from experience?
 - Did you encounter any unexpected challenges?
 - If you were to repeat this observation, what would you do differently?
- c) Appendix: Recording of raw data (1page, 1 point)

Guidelines for Conducting Interviews

The purpose of this project is to introduce you to data collection method of conducting qualitative interviews. This is a paired project. Working with your partner (may be same or different from previous project), use principles and guidelines discussed in class based on Creswell to do the following:

- 1. Identify a research question that is QUALITATIVE in nature.**
 - The purpose of the study should be fairly specific and limited in scope.
 - Sample: Why do people choose to become a therapist? How do people cope with stress as a 1st year MFT student? What makes people happy?
- 2. Develop an interview protocol of 5-7 questions to best address the purpose of the study.**
 - The number of questions and type of questions should be limited to an interview lasting about 30.
- 3. Prepare thoroughly for the interview and conduct interview**
 - What kind of setting and context will you conduct the interview?
 - How will you capture the interview data?
 - EACH person is to conduct own interview (not of each other)
- 4. Submit a JOINT 3-pages (max) single or double spaced report (no title page or references needed) that contains the following;**
 - a) Description and summary of the project. (1 page, 2 points)
 - Purpose of the study
 - Setting, context, process of interviews
 - Description of findings – any emerging themes?
 - b) Reflection on the experience (1 page, 2 points)
 - What is your reaction to the experience?
 - Did you encounter any unexpected challenges?
 - What differences did you note between the different forms of data recording?
 - What would you do differently?
 - What did you learn from your experience?
 - c) Appendix of interview questions: (1 page, 1 point)

Guidelines for Developing a Survey

The purpose of this project is to introduce you to survey and instrument design. Like the others, this is a partnered project working with the same or different person from the previous projects.

1. **Develop an instrument to measure a SPECIFIC CONSTRUCT**
Common examples of constructs: Depression, empathy, self-esteem, parenting style.
Consider developing your own on such constructs as: Research literacy, parental monitoring of social media in adolescents, quality of client-therapist bond, etc.
2. **Based on your selected construct, develop a 7-10 item instrument to measure this construct.**
 - Using the guidelines for constructing instruments covered in class, develop at least 7 questions as part of an instrument to measure this construct.
 - Create a complete measure as you would administer it someone, including title, instructions, rating scale, etc. and submit a hardcopy of the instrument as you would administer to someone. Attach as appendix.
3. **Provide description and rationale for WHY you designed the instrument as you did.**
 - In addition to developing the individual items of the instrument, describe your rationale for why you constructed the scale as you did.
 - What kind of response scale, wording format, scoring, etc. did you use and why?
4. **Submit a JOINT 3-pages (max) single or double spaced report (no title page or references needed) that contains the following;**
 - a) Description and summary of the project. (1-2 pages, 3 points)
 - Description of the construct
 - *Rationale for how the instrument was designed*
 - b) Reflection on the experience (1 page, 1 point)
 - c) Appendix of interview questions: (1 page, 1 point)

Guidelines for Group Research Proposal Project

The purpose of this exercise is for students to apply and integrate what they have learned in class to design a hypothetical quantitative study and think through the major design features.

1. **Form working groups of no more than 4 and narrow down topics of interest to define a hypothetical research project. Must be quantitative design with at least 2 IVs and 1 DV.**
2. **Define and describe the purpose of the study, research question(s), and hypothesis**
 - a) What is the big picture problem being addressed in study?
 - b) What is the specific purpose of the study?
 - c) What are the IVs? What is the scale of measurement?
 - d) What is the DV? What is the scale of measurement?
 - e) What kind of quantitative question and/or design is the study?
3. **Submit topic proposal to instructor for approval and feedback**
 - Once the research question has been loosely defined, email the instructor a topic proposal with the above information.
 - The topic must be approved by the instructor before proceeding.

4. Prepare a powerpoint presentation with the following slides with in-text CITATION

Slides	Content
1	Title of study and list of group members
1-4	Introduction and background of the problem <ul style="list-style-type: none"> - What is the big picture problem being addressed - Why is this topic important/significant? - Statement of the problem (specific problem being addressed in study) - What do we already know - What do we not know and therefore need to know (lead-into purpose)
1-2	Purpose of the study: Succinct overview of purpose of study Research question (min 1, max 2) and hypothesis for each RQ <ul style="list-style-type: none"> - For each RQ, specifically list IVs and DVs
	Method
1	- Overview of design: experimental, quasi, survey-correlational, descriptive
1	- Sample (who is your proposed sample – what kind of people?)
1-3	- Instrument: Describe and cite measure used for EACH IV and DV <ul style="list-style-type: none"> - you must search the literature for best existing measure for your variables - give essential information for each measure, including reliability - describe why this measure is most appropriate for your study
1-2	Procedure – describe how you will conduct your study and collect data
1-2	Results - planned analysis for each research question/hypothesis

5. Submit and present the research proposal in class with powerpoint (for 15 min)

- Email powerpoint to the instructor BEFORE CLASS on day of presentation.
- Each member of the group must be present and contribute EQUIVALENTLY to the preparation and presentation of the project (there will be a peer evaluation component at the end assessing equivalent participation)
- 15 minutes for presentation, 5 minutes for discussion

Detailed Course Guidelines

Late Penalty

Penalty of 1/3 letter grade reduction will be imposed for every 24-hour period that an assignment is due (e.g., A to A– to B+ to B to B–, etc.). If there are compelling personal circumstances to mitigate the late penalty, student must inform the instructor before the due date.

Class participation

Active participation will be assessed as described in the table below.

<i>Active Participation</i> 9-10 points	<i>Moderate Participation</i> 7-8 points	<i>Little to No Participation</i> 1-6 points
Attends all class sessions on time and returns from breaks in a timely manner. (Absence due to observance of religious holidays will not be counted against this portion of the grade.)	Does not miss more than 1 class (excused absence only), is on time most of the time, and returns from breaks in a timely manner.	Misses more than one class (with or without excused reason), is notably late on multiple occasions, and/or returns from breaks late in a manner that is disruptive to the class. Little to no participation in class

<p>Actively participates in class discussion and activities and shows verbal as well as nonverbal engagement (such as eye contact, body language, paying attention when others are talking). Stays on task during class discussion and exercises.</p> <p>Is attentive and respectful when others are talking. Demonstrates awareness of impact of self on others by monitoring self-participation to not overly monopolize class discussion to allow others opportunity to contribute.</p> <p>Demonstrates evidence of having completed all the assigned readings by specific reference and incorporation into class discussion and activities.</p> <p>Does not engage in distracted behavior such as using computer or phone for non-class related functions.</p>	<p>Moderate participation in class discussion and activities and shows verbal as well as nonverbal engagement (such as eye contact, body language, paying attention when others are talking). Stays on task during class discussion and exercises.</p> <p>Mostly attentive and respectful when others are talking. Demonstrates some awareness of impact of self on others by monitoring self-participation to not overly monopolize class discussion to allow others opportunity to contribute.</p> <p>Demonstrates adequate evidence of having completed all the assigned readings by specific reference and incorporation into class discussion and activities.</p> <p>Does not engage in distracted behavior such as using computer or phone for non-class related functions.</p>	<p>discussion and activities, limited non-verbal engagement (such as eye contact, body language, paying attention when others are talking). Does not stay on task during class discussion and exercises, and shifts to non-class related topic after only minimal engagement.</p> <p>Appears withdrawn and uninterested majority of the time. Inattentive and disengaged when others are talking.</p> <p>Demonstrates little awareness of impact of self on others by overly dominating class discussion to the extent of inhibiting others from participating.</p> <p>Demonstrates little evidence of having completed all the assigned readings. Comments offered are tangential and indicate lack of familiarity with readings or are vague and general.</p> <p>Engages in distracted behavior in class by checking cell phone and focusing on a screen in a way that is evident to the instructor that the student is not engaged in what is happening in the class in the moment.</p>
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Equivalent work in group projects. For any group project work, if there are any concerns about non-cooperation or non-equivalence of work among the members, the student having the concern should email the instructor as soon as possible. The instructor will then conduct an informal assessment (without indicating who raised the concern). In groups where this is an issue, the instructor will ask for peer rating of group members on equivalence of participation at the end of the project. If there is majority agreement (or sufficient evidence) as to nonequivalence of contribution, then that person's grade on that project may be lowered to maximum of a letter grade.

Grading Criteria for papers Grades will be assigned based upon the following criteria.

"A" Paper: The principal characteristic of the "A" paper is its rich content, "meaty," "dense," "packed." The information delivered is such that one feels significantly taught by the author, sentence after sentence, paragraph after paragraph. The "A" paper is also marked by stylistic finesse: the title and opening paragraph are engaging; the transitions are artful; the phrasing is tight, fresh, and highly specific; the sentence structure is varied; the tone enhances the purposes of the paper. It is completely free from grammatical or typographical errors.

Finally, the "A" paper, because of its careful organization and development, imparts a feeling of wholeness and unusual clarity. Not surprisingly, then, it leaves the reader feeling bright, thoroughly satisfied, and eager to reread the piece. An "A" paper clearly takes a stand and argues and defends that stand so as to completely persuade the reader, without leaving dangling questions and unexplored avenues of discussion. It is complete unto itself.

"B" Paper: It is significantly more than competent. Besides being almost free of mechanical errors, the "B" paper delivers substantial information that is, substantial in quantity, interest and value. Its specific points are logically ordered, well developed, and unified around a clear organizing principle that is apparent early in the paper. The opening paragraph draws the reader in; the closing paragraph is both conclusive and thematically related to the opening. The transitions between paragraphs are for the most part smooth, the sentence structures pleasingly varied. The diction of the "B" paper is typically more concise and precise than that found in the "C" paper. Occasionally, it even shows distinctiveness, i.e. finesse and memorability. On the whole, then, a "B" paper makes the reading experience a pleasurable one, for it offers substantial information with few distractions. It establishes a stand on an issue, and for the most part, clarifies and defends that stand, leaving few unanswered questions and unexplored angles. It is relatively successful in convincing the reader.

"C" Paper: It is generally competent and meets the minimum requirements of the assignment, but has mechanical errors, and is poorly organized and not written clearly. Information seems thin and commonplace. One reason for this is that the ideas are technically cast in the form of vague generalities. Stylistically, the "C" paper has little to draw the reader in; the final paragraphs are often bumpy; the sentences, besides being a bit choppy, tend to follow a predictable (hence monotonous) subject-verb-object order; and the diction is occasionally marred by unconscious repetitions, redundancy, and imprecision. The "C" paper, while it gets the job done, lacks both imagination and intellectual rigor, and hence does not invite a rereading. It attempts to establish a stand on an issue, but achieves only average success. It is not very successful in convincing the reader.

"D" Paper: Its treatment and development of the subject are as yet rudimentary. While organization is present, it is neither clear nor effective. Sentences are frequently awkward, ambiguous, and marred by serious mechanical errors. Evidence of careful proofreading, if any, is scanty. The whole piece, in fact, often gives the impression of having been conceived and written in haste. Or, the paper, while of standard writing, missed the assignment completely by achieving something other than requested such as presenting summary of an article rather than an analysis and opinion derived from article.

"F" Paper: Failed to follow paper guidelines. Does not address the required components or does so in a cursory and superficial manner without substantial effort. Lacks clear organization and the writing is of such poor quality that it is unacceptable. Mechanical errors are frequent. In short, the ideas, organization, and style fall far below what is acceptable graduate level writing.

Assignment Rubric

The following rubric provides a general guide as to how assignments in this course will be evaluated.

	<i>Excellent</i>	<i>Acceptable</i>	<i>Unsatisfactory</i>
Depth of thought	Shows evidence of depth of thought in preparation, organization, and clarity.	Evidence of depth of thought could be increased in some areas.	Not evident that serious thought went into preparation or organization.
Connection to course materials	Assignment shows engagement with course readings and other relevant literature and integrates this in an appropriate manner.	Some parts lack connection to course readings or other sources, or they are not integrated in an appropriate way.	Fails to relate to course materials and other relevant literature.
Completeness	All parts of the assignment are done completely and according to guidelines.	All parts of the assignments or presentation are done completely, however, lacks adherence to guidelines in some areas.	Assignment is not entirely complete, and/or shows marked lack of adherence to guidelines.
Format	Paper is free of grammatical, spelling, and format errors and is consistent with APA Guidelines.	Paper contains some errors in one or more of the areas related to format.	Paper contains significant format errors, which detract from the meaning.

Academic Integrity

USC seeks to maintain an optimal learning environment. General principles of academic honesty include the concept of respect for the intellectual property of others, the expectation that individual work will be submitted unless otherwise allowed by an instructor, and the obligations both to protect one's own academic work from misuse by others as well as to avoid using another's work as one's own. All students are expected to understand and abide by these principles. *Scampus*, the Student Guidebook, contains the Student Conduct Code in Section 11.00, while the recommended sanctions are located in Appendix A:

<http://www.usc.edu/dept/publications/SCAMPUS/gov/>. Students will be referred to the Office of Student Judicial Affairs and Community Standards for further review, should there be any suspicion of academic dishonesty. The Review process can be found at: <http://www.usc.edu/student-affairs/SJACS/>.

Observance of Religious Holidays

Students who are unable to attend class due to observance of religious holidays will not be penalized for their absence, but you must inform the instructor ahead of time via email clearly stating that the absence is due to religious reasons, and make arrangements to complete any missed coursework resulting from that absence.

Incompletes

An incomplete (IN) is given when work is not completed because of documented illness or some other emergency occurring after 80% of the course has been completed. Arrangements for the IN and its removal should be initiated by the student and agreed to by the instructor prior to the final exam. The University policy on Incompletes (IN) is as follows (from the USC Catalogue):

Conditions for Removing a Grade of Incomplete: If an incomplete is assigned as the student's grade, the instructor will fill out the Incomplete (IN) Completion form which will specify to the student and to the department the work remaining to be done, the procedures for its completion, the grade in the course to date, and the weight to be assigned to work remaining to be done when computing the final grade. A student may remove the IN by completing only the work not finished as a result of illness or emergency. Previously graded work may not be repeated for credit. It is not possible to remove an IN by re-registering for the course, even within the designated time.

Time limit for removal of an incomplete: One calendar year is allowed to remove an IN. Individual academic units may have more stringent policies regarding these time limits. If the IN is not removed within the designated time limit, the course is considered "lapsed" and the grade is changed to an IX and it will be calculated into the grade point average as 0 points. Courses offered on a Credit/No Credit basis or taken on a Pass/No Pass basis for which a mark of Incomplete is assigned will be lapsed with a mark of NC or NP and will not be calculated into the grade point average.

Students with disabilities

Any student requesting accommodations based due to a disability is required to register with the Disability Services and Programs office (DSP) each semester. A letter of verification for approved recommendations can be obtained through DSP. Please be sure the letter is delivered to the instructor as early in the semester as possible. DSP is located in STU 301 and is open 8:30 AM - 5:00 PM, M-F. The telephone number for DSP is (213) 740-0776. Email: ability@usc.edu; Website: <http://www.usc.edu/disability>