GSBA611: Research Methods: Developing, Testing, and Publishing Ideas

Spring 2020

Tue, 1:00pm-3:50pm, HOH 706

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COURSE DESCRIPTION

This class starts from the premise that there is no "perfect" study; trying to design one is futile. Each method comes with its own strength and weaknesses and the key to a compelling program of research is the construction of a package that clearly acknowledges the shortcomings of each individual study and compensates for them across studies. This requires familiarity with the strength and weaknesses of multiple methods and early consideration of their implications for a planned line of research.

But even when a package is persuasive with regard to the issue studied, a paper can fail to have much impact because the framing of the issue is too insular and fails to connect with broad questions about human behavior that are of interest beyond the fashion of the day in the author's particular neck of the woods. Running and publishing inconsequential studies takes as much time as running consequential ones. Whether one's time was well invested depends on whether one found the right level of specificity at which something of general interest could be said, while being specific enough to allow clear testing.

Even a paper that gets all of this right will have limited impact without siblings that push the idea further, connecting it with a range of different phenomena that may differ at the surface but share underlying processes. Papers that are orphaned in the hurry to do the next new thing die unnoticed.

The class aims to strike a balance between providing an overview of key issues of idea development, philosophy of science, data collection methods, recent developments in open science practices, and students' own current research problems. Each topic comes with an overview reading and select specific papers, geared towards students' current research projects. The latter readings can only be selected after students' projects are known – hence, the syllabus grows over the course of the semester. The class will provide ample time to discuss how the methods can be brought to bear on students' projects, allowing students to improve their conceptual framing and methodological choices, fostering the development of multi-method packages with a clear conceptual point.

COURSE OBJECTIVES

Research with impact requires
(1) a conceptual understanding of how one's specific issue connects with the world at large;
(2) a tailoring of the issue with the conceptual network in mind;

(3) familiarity with a range of different methods and different operational approaches;
(4) skill in recognizing their potential shortcomings and opportunities to compensate for them;
(5) transparent practices that support acceptance of the findings; and
(6) efficient dissemination through presentations and publications.

This class will help you develop these skills. Its focus is on idea development, methods choice, measurement, manipulation, and publication; it does not cover issues of data analysis.

COURSE MATERIALS

All required materials will be available on Blackboard. If you have any questions or need assistance with the Blackboard Course Pages, please contact the Marshall HelpDesk at 213-740-3000 (option 2) or HelpDesk@marshall.usc.edu." Alternatively, (213) 740-5555 will get you the USC ITS Help Desk.

Many of the overview readings will be drawn from Kardes, Herr, & Schwarz (2019), which will be available in the library with chapters available on Blackboard. Other readings will be selected in response to students' research topics and can therefore not be fixed before the beginning of class.

Reference:
Kardes, F., Herr, P., & Schwarz, N. (Eds.) (2019). *Handbook of research methods in consumer psychology*. New York: Routledge.

The ebook version is available when you go to the link and sign in with your USC credentials:
https://www-taylorfrancis-com.libproxy2.usc.edu/books/e/9781351137713

GRADING

Grading is based on class participation (10%), submission of discussion questions/bullet points in weeks with readings (20%), four presentations that apply the material discussed in class to your own research topic (40%), and a final research proposal (30%) that describes a series of studies using different methods, explains their strengths and shortcomings and how they complement one another to form a compelling package. For details see Assignments 1 to 5. There is no exam. The assignments provide multiple opportunities to discuss your research ideas and the proposal that presents them, complete with peer review and class input. The final version is due one week after the last day of class; please upload to Blackboard.

In case of a declared emergency if travel to campus is not feasible, the USC Emergency Information web site (https://emergency.usc.edu/) will provide safety and other information, including electronic means by which instructors will conduct class using a combination of USC's Blackboard learning management system (blackboard.usc.edu), teleconferencing, and other technologies.

COURSE OUTLINE AND ASSIGNMENTS

#1   Introduction and overview
Research methods are best learned by applying them to one's own current research topic. Please come to the first class prepared to present one or two topics that you are currently working on or intend to work on in the near future. See Assignment 1.

A.   Developing and testing ideas

#2   Developing ideas: From hunches to research programs

Developing an idea from a vague intuition to a rigorous research program starts with identifying and developing the key assumptions and their potential implications. There are no fool proof methods for this, but helpful advice is possible.

Weekly assignment: We will develop bullet points that summarize key insights. Please prepare 5 bullet points and 3 discussion questions.

Janiszewski, C., Labroo, A.A., & Rucker, D.D. (2016). A tutorial in consumer research: Knowledge creation and knowledge appreciation in deductive-conceptual consumer research, *Journal of Consumer Research*, 43, 200–209. – DOI https://doi.org/10.1093/jcr/ucw023

Johnson, S. (2011). *Where good ideas come from: The natural history of innovation*. Penguin. – Well summarized in a TED talk: https://www.youtube.com/watch?v=0af00UcTO-c

McGuire, W. J. (1997). Creative hypothesis generating in psychology: Some useful heuristics. *Annual Review of Psychology, 48*, 1-30.

Nisbett, R.E. (1990). The anticreativity letters: Advice from a senior tempter to a junior tempter. *American Psychologist,* 1078-1082.

Root-Bernstein, R.S. (1989). *Discovering: Inventing and solving problems at the frontiers of scientific knowledge.* Cambridge, Mass: Harvard University Press. – Selections: "Obstacles and inducements to exploratory research," pp. 382-407, and "A manual for strategies of discovering," pp. 407-419

Schwartz, M. A. (2008). The importance of stupidity in scientific research. *Journal of Cell Science*, *121*(11), 1771.

#3   Testing ideas: Some basic philosophy of science

Most researchers aim for studies that nicely illustrate their point, following a confirmation strategy. But we learn more from exposing ideas to an opportunity to be wrong in informative ways. And we learn the most when we pitch different ideas against one another and derive competing predictions. We discuss basic issues of philosophy of science and their implications for building a research program.

I recommend starting with Calder et al., followed by Popper, followed by Fabrigar et al. While Fabrigar et al focus on replications, they use that case to walk through all key issues of validity and their conceptual implications. End with McGrath.

Weekly assignment: We will develop bullet points that summarize key insights. Please prepare 5 bullet points and 3 discussion questions.

Calder, B.J., Brendl, M., & Tybout, A.M. (2019). Integrating effects and theory in research and applications. In Kardes, F., Herr, P., & Schwarz, N. (Eds.) (2019). *Handbook of research methods in consumer psychology* (pp. 419-437). New York: Routledge.

Fabrigar, L.R., Wegener, D.T., Vaughan-Johnston, T.I., Wallace, L.E., & Petty, R.E. (2019). Designing and interpreting replication studies in psychological research. In Kardes, F., Herr, P., & Schwarz, N. (Eds.) (2019). *Handbook of research methods in consumer psychology* (pp. 483-507). New York: Routledge.

McGrath, J. E. (1981). Dilemmatics: The study of research choices and dilemmas. *American Behavioral Scientist*, *25*(2), 179-210.

Popper, K. (1991/ 1934-35). Selections from "The Logic of Discovery." In R. Boyd, P. Gasper, & J.D. Trout (eds.), *Philosophy of science* (pp. 99-119). Cambridge, Mass.: MIT Press.

Resources
If this week prompts your interest in philosophy of science, you may want to look at Losee's review and the selection of classic pieces in Boyd et al.:

Losee, J. (1993). *A historical introduction to philosophy of science* (3rd ed.). Oxford, UK: Oxford University Press.

Boyd, R., Gasper, P., & Trout, J.D. (Eds.) (1991). *Philosophy of science*. Cambridge, Mass.: MIT Press.

#4   Your research topics

We return to students' own substantive research topics, focusing on the key conceptual idea, how it connects to a broader range of issues and which predictions make it testable. We aim to clarify issues of logical structure, testability, and conceptual integration at this stage. In the following classes we ask how the respective methods can be brought to bear on these topics, focusing on their respective strengths and weaknesses, while refining the conceptualizations. See Assignment 2.

B.   Measurement issues

#5   Asking questions about behaviors and attitudes: Understanding the processes underlying self-reports

The data we collect are only as meaningful as the answers our research participants provide. We review what has been learned about the question answering process in research situations.

Weekly assignment: We will develop bullet points that summarize key insights. Please prepare 5 bullet points and 3 discussion questions.

Schwarz, N. (2019). Surveys, experiments, and the psychology of self-report. In Kardes, F., Herr, P., & Schwarz, N. (Eds.) (2019). *Handbook of research methods in consumer psychology* (pp. pp. 17-40). New York: Routledge.

Resources

Schwarz, N. (1996). *Cognition and communication: Judgmental biases, research methods, and the logic of conversation*. Hillsdale, NJ: Erlbaum.

Schwarz, N. & Oyserman, D. (2001). Asking questions about behavior: Cognition, communication and questionnaire construction. *American Journal of Evaluation, 22*, 127-160.

Sudman, S., Bradburn, N.M, & Schwarz, N. (1996). *Thinking about answers: The application of cognitive processes to survey methodology*. San Francisco: Jossey-Bass.

Tourangeau, R., Rips, & Rasinski, K. (2000). *The psychology of survey response*. New York: Cambridge University Press

#6   Selecting and developing scales

We discuss the advantages and disadvantages of selecting scales from existing compilations vs. developing one's own. We also review the basic knowledge needed for both strategies.

Weekly assignment: We will develop bullet points that summarize key insights. Please prepare 5 bullet points and 3 discussion questions.

John, O.P., & Benet-Martinez, V. (2000). Measurement reliability, construct validation, and scale construction. In H.T. Reis & C.M. Judd (Eds.), *Handbook of research methods in social and personality psychology* (pp. 339-369). New York: Cambridge University Press.

Machleit, K. A. (2019). Developing measures of latent constructs. A practical guide to psychometric theory. In Kardes, F., Herr, P., & Schwarz, N. (Eds.) (2019). *Handbook of research methods in consumer psychology* (pp. 93-103)). New York: Routledge.

Resources
The International Personality item Pool (IPIP) is an open source collaboration that offers well validated, cost-free versions of many standard personality scales along with less frequently used scales of more narrow constructs. Always worth a look while considering how to capture a construct of interest:
https://ipip.ori.org/

One of the most useful resources for finding previously used questions and scales in the social sciences is the variable search option at the ICPSR homepage, which retrieves questions as well as datasets related to the variable; in most cases these are individual questions, not multi-item scales:
https://www.icpsr.umich.edu/icpsrweb/ICPSR/ssvd/

Bearden, W. O., William, B., Bearden, W. A., & Netemeyer, R. G. (2010). *Handbook of marketing scales: Multi-item measures for marketing and consumer behavior research* (3rd ed.). Thousand Oaks, CA: Sage.

This website lists scales from all over the place and charges for a day pass to peruse them:
https://www.marketingscales.com/research/day-pass

#7   Measures of implicit cognition

The procedures discussed in the preceding classes rely on explicit self-report. Complementing explicit reports, researchers can use methods that offer some insight into processes that people cannot directly report on. Most of these measures rely on response latencies. We review key measures and their potential and problems.

Weekly assignment: We will develop bullet points that summarize key insights. Please prepare 5 bullet points and 3 discussion questions.

Kardes, F., Escoe, B., & Wu, R. (2019). Response latency methodology in consumer psychology. In Kardes, F., Herr, P., & Schwarz, N. (Eds.) (2019). *Handbook of research methods in consumer psychology* (pp. 132-142). New York: Routledge.

McConnell, A.R., & Rydell, R.J. (2019). The implicit associations test: Implications for understanding consumer behavior. In Kardes, F., Herr, P., & Schwarz, N. (Eds.) (2019). *Handbook of research methods in consumer psychology* (pp. 143-159). New York: Routledge.

Vargas, P. T., Sekaquaptewa, D., & von Hippel, W. (2007). Armed only with paper and pencil: "Low-tech" measures of implicit attitudes. In B. Wittenbrink & N. Schwarz (Eds.), *Implicit measures of attitudes* (pp. 103-124). New York: Guilford.

Resources
Gawronski, B., & Payne, B. K. (Eds.). (2011). *Handbook of implicit social cognition: Measurement, theory, and applications*. Guilford Press.

Wittenbrink, B. & Schwarz, N. (Eds.) (2007). *Implicit measures of attitudes*. New York: Guilford.

#8 Your research topics
We again return to your own research topics to further develop your research program in light of the measurement issues covered in the preceding classes. See Assignment 3.

C. In the lab, the field, and online

#9 Experimental design: Planning and running experiments
Many people understand the logic of experimentation but fail once they hit the lab -- randomization doesn't work, manipulations are too weak or too transparent, the pretest didn't identify the problems, and the data don't lend themselves to meaningful analyses. We'll address some frequent pitfalls. Some questions to consider as you go through the readings:

- What makes your design and procedures "powerful"?
- How do you assess the power of your design, your procedures, and your analytic strategies? And no, statistical power isn't the only issue here.
- How can you minimize error variance?
- How do you learn *why* a study failed?
- How can you increase the odds that your study isn't for the garbage bin? Can it be of interest even in the absence of perfect results?

- How would your design change if your resources increased/ decreased, e.g., a small versus large subject pool, research money, competent research assistants, a statistics consultant, access to unique populations, etc.?

The most useful reading on how to run experiments is Aronson et al – it is an easy read and worth it.
Weekly assignment: We will develop bullet points that summarize key insights. Please prepare 5 bullet points and 3 discussion questions.

Aronson, E., Ellsworth, P.C., Carlsmith, J.M., & Gonzales, M.H. (1990*). Methods of research in social psychology*. New York: McGraw-Hill. – Chapters 2-10.

Campbell, D.T., & Stanley, J.C. (1966). *Experimental and quasi-experimental designs for research*. New York: Rand McNally.

#10   Mturk and friends: Ups and downs of crowdsourcing
Over the last decade, online experiments have replaced lab experiments in popularity. This week we talk about the numerous ups and downs of this development with a focus on how to run online experiments well, how to ensure data quality, and how to address reviewer concerns.

Weekly assignment: We will develop bullet points that summarize key insights. Please prepare 5 bullet points and 3 discussion questions.

Hauser, D.J., Paolacci, G., & Chandler, J. (2019). Common concerns with MTurk as a participant pool: Evidence and solutions. In Kardes, F., Herr, P., & Schwarz, N. (Eds.) (2019). *Handbook of research methods in consumer psychology* (pp. 319-338). New York: Routledge.

Guest: David Hauser will join us via skype

Resources
There are numerous tutorials online. Many students find the ones from Turkprime particularly helpful:
https://www.cloudresearch.com/resources/blog/turkprime-video-tutorials-to-get-you-started-with-mechanical-turk/

But beware, the details change often and it is always worth checking the Amazon site directly:
https://docs.aws.amazon.com/AWSMechTurk/latest/AWSMechanicalTurkGettingStartedGuide/Welcome.html

#11   Beyond the lab: field studies and ecological momentary assessment
Most behavioral research is currently conducted online or in the lab, which can limit the external validity of the work (and gives an easy opening for critics who fail to understand the logic of theory testing and application). Field studies can address some of these concerns. Moreover, for some topics it is important to understand descriptively what people actually do, which can dramatically differ from what they believe they do. Ecological momentary assessment and related methods can shed light on human behavior and experience in natural contexts.

Weekly assignment: We will develop bullet points that summarize key insights. Please prepare 5 bullet points and 3 discussion questions.

Lieberman, A., Morales, A.C., & Amir, O. (2019). Beyond the lab: Using data from the field to increase research validity. In Kardes, F., Herr, P., & Schwarz, N. (Eds.) (2019). *Handbook of research methods in consumer psychology* (pp. 41-60). New York: Routledge.

Newman, D.B., & Stone, A.A. (2019). Understanding daily life with ecological momentary assessment. In Kardes, F., Herr, P., & Schwarz, N. (Eds.) (2019). *Handbook of research methods in consumer psychology* (pp. 259-275). New York: Routledge.

Guest: David B. Newman

Resources
Morales, A.C., Amir, O., Lee, L. (2017). Keeping it real in experimental research—Understanding when, where, and how to enhance realism and measure consumer behavior. *Journal of Consumer Research*, 44, 465–476. DOI https://doi.org/10.1093/jcr/ucx048

We do not cover representative **surveys** in this class because few students will ever be in a position to conduct one. However, it is important to understand what they can and cannot deliver and to be an informed consumer of survey findings. The American Association for Public Opinion Research has produced an excellent tutorial for journalists that helps them make informed and responsible use of survey findings. I urge you to watch it. The link sometimes moves at the site, so if needed, search for "Understanding and interpreting polls". There is no charge when you put the course into the shopping cart:

https://www.poynter.org/shop/self-directed-course/understanding-and-interpreting-polls-international/

#12   Open science practices: Preregistration, open materials, open data
We discuss the development towards open science and the practical steps involved in it. The Klein et al piece is open access (click link) and provides a broad overview. It will be complemented by draft chapters from a book that will become available in early spring (details pending).

Weekly assignment: We will develop bullet points that summarize key insights. Please prepare 5 bullet points and 3 discussion questions.

Klein, O., Hardwicke, T. E., Aust, F., Breuer, J., Danielsson, H., Hofelich Mohr, A., … Frank, M. C. (2018). A practical guide for transparency in psychological science. *Collabra: Psychology*, *4*(1), 20. DOI: http://doi.org/10.1525/collabra.158

#13   Your research topics
We again return to your own research topics to further develop your research program in light of the procedural issues covered in the preceding classes. See Assignment 4.

D.   Dissemination: Presenting and publishing your work

#14   Presenting and publishing

Even excellent work will have little impact when your dissemination strategy is lacking. We talk about effective presentation and publication strategies, complete with journal selection, reviewing, response to reviewers, and so on. We will also consider trade-offs between short-term goals (getting a job may require publication in a limited range of journals) and long-term goals (having impact, which is rarely helped by having your paper refocused by the contradictory agendas of 3 reviewers).

Advice on (almost) every communication task
The MIT Communication Lab maintains an extremely useful website with advice on most communication tasks an academic may ever encounter, from fellowship applications to book manuscripts. Regularly updated and worth a look:
https://mitcommlab.mit.edu/be/use-the-commkit/

Presenting a poster
Watch the video and obey! https://www.youtube.com/watch?v=1RwJbhkCA58
The template for that style is here: https://osf.io/ef53g/

Writing
The most useful advice on writing comes from Bem, although some of his recommendations include a level of ex-post theorizing that is not acceptable. You'll recognize that after our preceding discussion of transparency and his advice on readability is on target.

Bem, D.J. (1987). Writing the empirical journal article. In M.P. Zanna & J.M. Darley (Eds.), *The compleat academic: A practical guide for the beginning scientist* (pp. 171-203). Hillsdale, NJ: Erlbaum.

Bem, D. J. (1995). Writing a review article for Psychological Bulletin. *Psychological Bulletin*, *118*(2), 172-177.

Mensh B, Kording K (2017) Ten simple rules for structuring papers. *PLoS Comput Biol 13(9)*: e1005619. https://doi.org/10.1371/journal.pcbi.1005619

Many authors struggle with meaningful abstracts that make sense when they show up on Google Scholar and other search engines. Nature gives some useful advice that can be helpful in any discipline (focus on the points on the left, not the specifics in the example):
http://s3-service-broker-live-19ea8b98-4d41-4cb4-be4c-d68f4963b7dd.s3.amazonaws.com/uploads/ckeditor/attachments/7808/2c_Summary_para.pdf

Visualizations
There are many good sources with advice for the choice of data visualizations. Here are some of them:

Franconeri's blog entry:
https://medium.com/multiple-views-visualization-research-explained/multiple-views-on-how-to-choose-a-visualization-b3ffc99fcddc

Rougier NP, Droettboom M, Bourne PE (2014) Ten Simple Rules for Better Figures. *PLoS Comput Biol 10(9): e1003833*. https://doi.org/10.1371/journal.pcbi.1003833

Reviewing & responding to reviews

Bagchi, R. Block, L., Hamilton, R., & Ozanne, J. (2017). A field guide for the review process: Writing and responding to peer reviews. *Journal of Consumer Research*, 43, 860–872. -- DOI https://doi.org/10.1093/jcr/ucw066

There are also several new efforts to broader the reviewer base throughout science by offering various training programs. Here are a few of them that convey basic reviewing skills, discuss ethics, and offer opportunities to be used as a reviewer for a wide range of journals. There is some value in these exercises – they at least make you more aware of what reviewers (are supposed to) look for.

Nature's Masterclass
https://masterclasses.nature.com/online-course-on-peer-review/16507836

Publons Academy
https://publons.com/community/academy/

Elsevier's Certified Peer Reviewer Course – you can earn a certificate
https://researcheracademy.elsevier.com/navigating-peer-review/certified-peer-reviewer-course

And if it comforts you, learn how publishers try to fight reviewing fraud (e.g., the author recommends a reviewer who has fine credentials on Google Scholar but makes up an alias email on gmail, so the author can act as that esteemed person and review her own paper; or, you review me, I review you; or…). Don't waste your time with such stuff.

Scholar One's tools for detecting reviewer fraud
https://clarivate.com/webofsciencegroup/webinars/scholarones-robust-tool-for-detecting-peer-review-fraud-and-more/

#15   Wrap-up: Where from, where to?
Your final research proposal is due one week from today, as indicated on Blackboard. Please upload to Blackboard. See Assignment 5. We use this last class to discuss open questions and final issues related to your research plans.

| STATEMENT ON ACADEMIC CONDUCT AND SUPPORT SYSTEMS |

Academic Conduct:
Students are expected to make themselves aware of and abide by the University community's standards of behavior as articulated in the Student Conduct Code. Plagiarism – presenting someone else's ideas as your own, either verbatim or recast in your own words – is a serious academic offense with serious consequences. Please familiarize yourself with the discussion of plagiarism in *SCampus* in Part B, Section 11, "Behavior Violating University Standards" policy.usc.edu/scampus-part-b. Other forms of academic dishonesty are equally unacceptable. See additional information in *SCampus* and university policies on scientific misconduct at http://policy.usc.edu/scientific-misconduct.

Support Systems:

Counseling and Mental Health - (213) 740-9355 – 24/7 on call
studenthealth.usc.edu/counseling

Free and confidential mental health treatment for students, including short-term psychotherapy, group counseling, stress fitness workshops, and crisis intervention.

National Suicide Prevention Lifeline - 1 (800) 273-8255 – 24/7 on call
suicidepreventionlifeline.org
Free and confidential emotional support to people in suicidal crisis or emotional distress 24 hours a day, 7 days a week.

Relationship and Sexual Violence Prevention and Services (RSVP) - (213) 740-9355(WELL), press "0" after hours – 24/7 on call
studenthealth.usc.edu/sexual-assault
Free and confidential therapy services, workshops, and training for situations related to gender-based harm.

Office of Equity and Diversity (OED)- (213) 740-5086 | Title IX – (213) 821-8298
equity.usc.edu, titleix.usc.edu
Information about how to get help or help someone affected by harassment or discrimination, rights of protected classes, reporting options, and additional resources for students, faculty, staff, visitors, and applicants. The university prohibits discrimination or harassment based on the following *protected characteristics*: race, color, national origin, ancestry, religion, sex, gender, gender identity, gender expression, sexual orientation, age, physical disability, medical condition, mental disability, marital status, pregnancy, veteran status, genetic information, and any other characteristic which may be specified in applicable laws and governmental regulations. The university also prohibits sexual assault, non-consensual sexual contact, sexual misconduct, intimate partner violence, stalking, malicious dissuasion, retaliation, and violation of interim measures.

Reporting Incidents of Bias or Harassment - (213) 740-5086 or (213) 821-8298
usc-advocate.symplicity.com/care_report
Avenue to report incidents of bias, hate crimes, and microaggressions to the Office of Equity and Diversity |Title IX for appropriate investigation, supportive measures, and response.

The Office of Disability Services and Programs - (213) 740-0776
dsp.usc.edu
Support and accommodations for students with disabilities. Services include assistance in providing readers/notetakers/interpreters, special accommodations for test taking needs, assistance with architectural barriers, assistive technology, and support for individual needs.

USC Support and Advocacy - (213) 821-4710
uscsa.usc.edu
Assists students and families in resolving complex personal, financial, and academic issues adversely affecting their success as a student.

Diversity at USC - (213) 740-2101
diversity.usc.edu
Information on events, programs and training, the Provost's Diversity and Inclusion Council, Diversity Liaisons for each academic school, chronology, participation, and various resources for students.

USC Emergency - UPC: (213) 740-4321, HSC: (323) 442-1000 – 24/7 on call
dps.usc.edu, emergency.usc.edu

Emergency assistance and avenue to report a crime. Latest updates regarding safety, including ways in which instruction will be continued if an officially declared emergency makes travel to campus infeasible.

USC Department of Public Safety - UPC: (213) 740-6000, HSC: (323) 442-120 – 24/7 on call
[dps.usc.edu](dps.usc.edu)
Non-emergency assistance or information.

Attachment: Assignments 1-5

Note. Many aspects of this class may change in response to students' needs and class discussions. All changes will be announced on Blackboard. The valid version of the syllabus and of each assignment is always the one on Blackboard, not the one on the paper syllabus.

Assignment 1: Research ideas #1
In class #1 all students will present one or two research ideas they are currently interested in. In future classes, we will work on developing and testing these ideas. There is no need for power point presentations at this stage, but you should be prepared to give a coherent description that answers these questions:
(1) What is the key idea?
(2) Which general conceptual framework does this idea connect to?
(3) How do you intend to test it?
(4) What would be helpful to you in developing this research?

To help me with planning, please type up your answers and upload at Blackboard.

Assignment 2: Research ideas #2
Return to what you presented as Assignment 1 and revise it in light of the readings and discussions in the preceding classes, considering the bullet points we jointly developed in class.
(1) Does your key idea generate falsifiable predictions?
(2) Can you use the materials discussed under "idea generation" to develop additional predictions?
(3) What would be the implications of support or falsification of your predictions for the broader conceptual framework? Note that answering this question requires that you spell out the logical connections, as discussed under "testing ideas"

Be prepared to discuss your answers in class and upload them to Blackboard.

Assignment 3: Research ideas #3
Building on what you presented as Assignment 2, consider the implications of our measurement discussions for your proposed research, drawing on the bullet points we jointly developed in class.
(1) Are there existing scales that might be useful for your work?
(2) If not, what would you need to develop? How would you do that?
(3) Looking at scales and items you have in mind, identify potential conversational issues and problems of recall and judgment as discussed under "psychology of self-report".
(4) How would you assess whether participants understand what you ask as intended?
(5) Could implicit measures complement explicit measures in your work? How?

Be prepared to discuss your answers in class and upload them to Blackboard.

Assignment 4: Research ideas #4
Building on what you presented as Assignment 3, consider the implications of our procedural discussions for your proposed research, drawing on the bullet points we jointly developed in class.
(1) What makes your design and procedures "powerful"?
(2) Suppose your study "fails". What can you build in to know why?
(3) Do you want to change your design in light of what you learned? How?
(4) What would be the advantages and disadvantages of crowd sourcing for your project?

(5) Can you use more naturalistic methods to address your question?
(6) How will you implement open science practices?

Be prepared to discuss your answers in class and upload them to Blackboard.

Assignment 5: Final research proposal
Building on the previous assignments, prepare a research proposal of 10 to 15 pages (not counting references) that gives a coherent presentation of your key idea, its conceptual implications, your testing strategy, and your dissemination plans. Please upload to Blackboard no later than [DATE].