

Research Methods in Clinical Psychology (PSY 394Q)

Fall 2002

Instructors: Mike Telch and Eric Stice

Class meetings Thursday 2:00-5:00 Seay 5.106

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Stice Articles can be found at the URL:

<http://homepage.psy.utexas.edu/homepage/class/psy394Q/> - Under "Research Methods"

The primary goal of this seminar is to provide you with advanced training in research methodology that is germane to the field of clinical psychology. Our hope is that this material will not only optimize the quality of the research you conduct personally, but will also help you become educated consumers of others' research. Moreover, we hope that this class will help you bridge the gap between your roles as a scientist and as a practitioner, thus facilitating your development as an applied scientist.

We will attempt to expose you to the fundamentals of research, including philosophy of science, measurement, reliability, and validity. We will introduce more advanced and specific topics such as moderation, mediation, single-case designs, epidemiology, prevention, and randomized experiments. We will also cover manuscript writing, responding to reviewers, and grant writing.

Towards these ends, we will assign pertinent readings, which you will be expected to have read and understand before the class covering that topic. This is key because discussion of the various issues will be encouraged to maximize critical thinking and assimilation. A midterm and a final will cover this material and will each account for 25% of your grade.

The second aim of this seminar is to help you complete the research proposal for your first-year project (or second-year project or some other empirical study). Towards this end, you will be required to (1) submit a rough draft of your proposal for evaluation, (2) give an informal presentation of your research plan to the class so that fellow students and the instructors can provide preliminary feedback, (3) give a formal power-point presentation of your proposed project to the class, and (3) submit a final draft of your proposal at the end of the semester. These three projects will account for 10%, 5%, 5%, and 30% of your grade respectively.

It should be noted that although you are encouraged to have your mentor read the two drafts of your proposal and discuss your project in detail, she/he should not provide specific word-for-word feedback on drafts that we are grading for this class. We do not want individual differences in the level of feedback from mentors to influence grades because this would not be fair to all students.

All readings will be distributed as pdf files available on the web.

The University of Texas at Austin provides upon request appropriate academic accommodations for qualified students with disabilities. For more information, contact the Office of the Dean of Students at 471-6259, 471-4641 TTY.

Topics and Timeline

- 8/28 Introduction. Overview of class topics, goals, and requirements. Telch
- 9/4 Validity. Definitions of various types of validity and threats to internal and external validity. Design solutions to enhance validity. Telch
- 9/11 Single-Case Experimental design. Maximizing validity with minimal subjects. Telch
- 9/18 Experimental Research Paradigms. Biological challenge, cognitive/information processing, and social-clinical strategies; statistical power. Telch
- 9/25 Randomized Clinical Trials. Design, efficacy, effectiveness. Meta-analysis. Telch
- 10/2 Mediators and Moderators within the Context of Clinical Trials. Mechanisms of change in psychotherapy research, moderators and treatment matching. Telch
- 10/9 Exam I
- 10/16 Epidemiology and Prevention. Sampling, longitudinal designs, statistical power, prevalence, incidence, risk research terminology, random/continuous time sampling, and prevention. Stice
- 10/23 Moderation and Mediation. Conceptual definition and optimal tests of moderation and mediation. Scientific writing for dummies and responding to reviewers. Stice
First draft of proposal due by 5:00 PM.
- 10/30 Preliminary informal student presentations of possible second year projects (15 min. each).
Stice video conference
- 11/6 Philosophy of Science/Ethics. Philosophy of science, review and criticisms of hypothesis testing, and exploratory versus confirmatory approaches to research. Ethics in research and collaborative writing. Stice
- 11/13 Measurement. Scale construction and definitions of various types of reliability and how to establish. Stice
- 11/20 Formal student presentations of second year projects (30 min. each).
Stice video conference.
- 11/27 Eat Turkey

12/4 Grants / Ethnicity. Issues in planning research studies (significance, approach, feasibility, human subjects, and gender/minorities/children), grant preparation, and grant options. Telch Ethnically sensitive research. Ramirez

12/11 Final copy of proposal due by 5:00

12/15 Exam II (2:00-5:00)

Readings for Stice Presentations

10/16 Epidemiology and Prevention. Sampling, longitudinal designs, statistical power, prevalence, incidence, risk research terminology, random/continuous time sampling, and prevention. Stice Cohen, J. (1992). A power primer. Psychological Bulletin, 112, 155-159.

Kraemer, H.C., Kazdin, A.E., Offord, D.R., Kessler, R.C., Jensen, P.S., & Kupfer, D.J. (1997). Coming to terms with the terms of risk. Archives of General Psychiatry, 54, 337-343.

Clarke, G., Hawkins, W., Murphy, M., Sheeber, L., Lewinsohn, P.M., & Seeley, J.R. (1995). Targeted prevention of unipolar depressive disorder in an at-risk sample of high school adolescents: A randomized trial of group cognitive intervention. Journal of the American Academy of Child and Adolescent Psychiatry, 34, 312-321.

10/23 Moderation and Mediation. Conceptual definition and optimal tests of moderation and mediation. Scientific writing for dummies and responding to reviewers. Stice

Baron, R. M., & Kenny, D. A. (1986). The moderator-mediator variable distinction in social psychological research: Conceptual, strategic, and statistical considerations. Journal of Personality and Social Psychology, 51, 1173-1182.

Kraemer, H. C., Stice, E., Kazdin, A., & Kupfer, D. (2001). How do risk factors work? Mediators, moderators, independent, overlapping, and proxy risk factors. American Journal of Psychiatry, 158, 848-856..

Bem, D. J. (1987). Writing the empirical journal article. In M. P. Zanna & J. M. Darley (eds.), The Complete Academic (pp. 171-201). New York: Random House.

11/6 Philosophy of Science. Philosophy of science, review and criticisms of hypothesis testing, and exploratory versus confirmatory approaches to research. Stice

Popper, K. Scientific theory and falsifiability. In J.A. Mourant & E.H. Freud (Eds.), Problems of philosophy: A book of readings (pp. 541-547).

Platt, J.R. (1964). Strong inference. Science, 146, 347-353.

Cook, T.D., & Campbell, D.T. (1979). Causal inference and the language of experimentation (Ch 1). In Quasi-Experimentation: Design and Analysis Issues for Field Settings (pp. 1-36).

Cohen, J. (1994). The earth is round ($p < .05$). American Psychologist, 49, 997-1003.

11/13 Measurement. Scale construction and definitions of various types of reliability and how to establish. Stice

Clark, L.A., & Watson, D. (1995). Constructing validity: Basic issues in objective scale development. Psychological Assessment, 7, 309-319.

West, S. G., & Finch, J. F. (1997). Personality measurement: Reliability and validity issues. In *Handbook of Personality Psychology* (pp. 143-164).

Sechrest, L. (1984). Reliability and validity. In A. Bellack & M. Hersen (eds.), Research Methods in Clinical Psychology (pp. 24-54). New York: Pergamon.