
University of South Florida
PSY 6217
Single Case Experimental Design
3 Credits

Course Syllabus
2007, Fall Semester

Instructor: Trevor Stokes, Ph.D., Professor
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MHC 2224
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Office Hours: Tuesday, Noon to 1.30 pm

Classroom: MHC 1503

Class Times: Tuesday, 1.30 pm to 4.30 pm.
Class attendance and participation is required. There will be a sign-up sheet in the classroom to record your attendance -- it is your responsibility, so be sure to sign it.

First class:	Tuesday August 28, 2007
Mid-term exam:	Tuesday October 9, 2007.
Last class:	Tuesday December 4, 2007.
Final exam:	Tuesday December 11, 2007.

Course Description: The course will examine the logic of experimental control in human research, specifically as it relates to single case experimental designs, a hallmark of applied behavior analysis. These designs operate to demonstrate functional relationships between adjustments in independent variables and their effects upon dependent variables in repeated measures applied research.

Course Objectives: Students completing this course will understand and be able to discuss theoretical and practical issues in experimental design and control using small numbers of participants, as well as examine single case experimental research in the applied behavior analysis literature.

Class Topics:

1. Opinion, coincidence and causality
Probability and statistics
2. Applied Behavior Analysis in history of science
3. Probability, statistics and errors
4. Reliability and validity
Replication and Generalizability
5. Assessment of behavior
6. Generalization
Social validity
7. Independent variables
Dependent variables
8. Repeated measures
Variability
Evaluating change
9. Solomon design
10. Reversal and withdrawal designs
11. Multiple baseline designs
12. Changing criteria design
Multiple treatments design
Alternating treatments design
Component analysis

Texts:

Bailey, J.S. & Burch, M.R. (2002). *Research Methods in Applied Behavior Analysis*. Thousand Oaks, CA: Sage.

Budd, K.S. & Stokes, T. (Eds). (2003). *A Small Matter of Proof: The Legacy of Donald M. Baer*. Reno, NV: Context Press.

Kazdin, A.E. (1982). *Single Case Research Designs*. New York, NY: Oxford University Press.

Articles (including, but not limited to the following):

Baer, D.M. (1977). "Perhaps it would be better not to know everything." *Journal of Applied Behavior Analysis*, 10, 167-172.

Baer, D.M., Wolf, M. M. & Risley, T.R. (1968). Some current dimensions of applied behavior analysis, *Journal of Applied Behavior Analysis*, 1, 91-97.

Campbell, D.T. & Stanley, J.C. (1963). *Experimental and quasi-experimental designs for research*: Chicago: Rand McNally. p.24f.

Dimidjian, S., Hollon, S.D., Dobson, K.S., Schmaling, K.B., Kohlenberg, R.J., Addis, M.E., Gallop, R., McGlinchey, J.B., Markley, D.K., Gollan, J.K., Atkins, D.C., Dunner, D.L., & Jacobson, N.S. (2006). Randomized trial of behavioral activation, cognitive therapy, and antidepressant medication in the acute treatment of adults with major depression. *Journal of Consulting and Clinical Psychology*, 74, 658-670

Horner, R. H., Carr, E. G., Halle, J., McGee, G., Odom, S. & Wolery, M. (2005). The use of single-subject research to identify evidence-based practice in special education. *Exceptional Children*, 71, 165-179.

Michael, J. (1974). Statistical inference for individual organism research. *Journal of Applied Behavior Analysis*, 7, 647-653.

Olaf, B., Ortigue, S., Landis, T, & Seeck, M. (2002). Neuropsychology: Stimulating illusory own-body perceptions. *Nature*, 419, 269-270.

Sidman, M. (1960/1988). *Tactics of Scientific Research*. Boston: Authors Cooperative, Inc. Chapters 1-5.

Stokes, T.F. & Baer, D.M. (1977). An implicit technology of generalization. *Journal of Applied Behavior Analysis*, 10, 349-367.

Stokes, T. (1999). Psychotherapy for some anxiety sequelae of Leukemia. *Education and treatment of Children*, 22, 184-193.

Stokes, T. (2002). Terror and violence perpetrated by children. In C.E. Stout (Ed.). *The Psychology of Terrorism*. Volume 4: Programs and practice in response and prevention. Greenwood Publishing. Pp 53-66.

Wallis, C. (2006). Blame it on Teletubbies. *Time*, October 30.

Wolf, M. M. (1978). Social validity: The case for subjective measurement or how applied behavior analysis is finding its heart. *Journal of Applied Behavior Analysis*, 11, 203-214.

Weekly Assignments:

This course has twelve topic sections that will be examined in sequence. Any variations on topic or sequence will be announced in class.

Readings will be assigned for the next topic section discussion at the end of each class.

The instructor will begin class with questions-comments and then proceed to reactions from class members and further commentary and discussion by the instructor and students.

A written commentary/discussion paper will be due in class at the beginning of each class (except the first class, the mid-term exam day, and final exam day).

Each topic paper will be an 800-word commentary, in *two* parts on *separate* pages:

- a. Student's commentary and reaction to readings assigned to class for that day.
- b. Student's reactions to class discussion on the previous week.

Papers should be double-spaced and typed on no more than two pages. Please choose your words carefully and check spelling. Materials longer than the assigned length or late papers may not be read.

Grades:

The class will meet 16 times in the fall semester, including a mid-term exam (October 9) and a final exam (December 11).

Evaluation and grades allocated will be based on performance in four areas:

- A. Class attendance and participation (70 points. 9%).
- B. Class topic papers (260 points. 33%).
- C. Mid-term and Final papers (150 points. 19%).
- D. Mid-term and Final exams (300 points. 39%).

A. Class participation on each of the fourteen regular classes is worth up to 5 points, for a total of 70 points. Appropriate class discussion is regular participation with relevant content and thoughtful answers to questions.

B. After the first class, each of 13 class discussion/commentary papers is worth up to 20 points, for a total of 260 points. Papers are due at the beginning of each class.

C. The mid-term paper will be due on October 9. The topic(s) of the paper will be announced by September 11, 2007. The paper will be a 1000 word answer to the question(s) posed and will be worth up to 50 points.

The final paper is due on December 11. The topic(s) of the paper will be announced by November 13, 2007. The paper will be a 2000 word answer to the question(s) posed and will be worth up to 100 points.

D. The mid-term exam is worth up to 150 points. The exam will consist of ten multiple choice and ten short-answer questions. The final exam will be worth up to 150 points. The exam will consist of ten multiple choice and ten short-answer questions.

Total points available are 780.

Grades will be allocated as follows:

A = 702 points or more. (>90%)

B = 624 to 701 points. (>80%)

C = 546 to 623 points. (>70%)

F = 545 or less points.

Written medical excuses will be accepted for late papers.

Plagiarism policy:

As per the USF catalogue, plagiarism is defined as "literary theft and consists of the unattributed quotation of the exact words of a published text, or the unattributed borrowing of original ideas by paraphrase of a published text." The university now makes available (to USF teaching faculty) computer software to detect plagiarism.

All works by others are to be appropriately cited both in the body of the text as well as the references section of your papers, in a format consistent with the APA publication manual. Presenting anyone else's work or parts of their work as your own work on assignment papers or article summaries is considered plagiarism. Students identified as using plagiarized work will be given an F as grade for the course.

Accommodations

If you need special accommodations, or if there is any topic or activity in class which makes you feel uncomfortable and causes serious distress, please advise the instructor or a representative of USF.

Students who anticipate being absent from class due to religious observance or other reasons should inform the instructor by the second class meeting.

No permission is expressed or implied that students may sell notes or tapes of class.