

I & L 3536: Single Subject Research
Spring, 2019

Course Syllabus

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Office Hours: By appointment

Class Meeting: Mondays 11am-1:40pm. 5152 Posvar

Course Description: Overview of research methods associated with collecting and evaluating repeated measures on single cases.

Required Texts:

Johnston, J. M., & Pennypacker, H. S. (2009). *Strategies and tactics of behavioral research* (3rd ed.). New York: Routledge. ISBN: 9780805858822

Kennedy, C. H. (2005). *Single-case designs for educational research*. New York: Pearson ISBN 0205340237

Articles and Selected Readings:

TBD (emailed to you prior to class)

Specific Objectives:

The student will:

1. describe and apply the logic and rationale of single case research.
2. formulate research questions for single case studies from the literature.
3. define behaviors for measurement and describe methods for measuring those behaviors.
4. use appropriate methods for obtaining reliability and accuracy.
5. describe the requirements, advantages, uses, and limitations of comparative single case designs, including the alternating-treatments designs, multi-treatment designs, adapted-alternating treatments designs, and parallel-treatments designs.
6. describe the characteristics of data, display data graphically, and describe data by its characteristics.
7. write the introduction, methods, and data analysis procedures for single case studies.
8. discuss ethical issues involved in experimental studies.
9. understand the conceptual underpinnings of the independent and dependent variable.

Methods of Instruction: Discussion, In-class activities, Student presentations, and research proposal writing.

Assignments and Evaluation:

Class Attendance: My expectation: you will attend all sessions. I will take attendance at the start of each class. If you cannot attend class due to illness or other extenuating circumstances, inform me via email or office voice mail **prior** to the start of class. You are responsible for the content and for contacting a classmate for the notes and announcements. Students may have 2 absences (either unexcused or excused) during the semester. Each subsequent absence after 2 results in a 2 point deduction from your final grade.

Weekly Questions: Each week, you will complete four questions based on the reading assignment to class. Two of these question should be accompanied by outlines of answers. I will read them, comment on the answers, and return them to you the following week. These can then form the basis of your own course material should you ever have occasion to teach this material. The second two questions should be submitted anonymously. These will be collected and used for classroom discussion. You will submit all questions and outlines by the FRIDAY prior to class. (11 * 5 = 55 total points).

Single-case design methods article review (Paper and Presentation: 35): The overall aim of this course is to help you generate better research of your own while giving you a basis for evaluating the empirical subject matter of your discipline. Select a research article (single case design) in the literature of your area of interest and subject it to a critical review that comports with the major components of a Methods section. Use the following heading in bold and provide the following descriptions. NOTE: During the second to last class, you will present your findings to the class. Please send a copy of your article to the class prior to the presentations. Read each article and take notes to contribute to each presentation/discussion.

1. **Experimental question.** If there was no experimental question, was there a hypothesis or reason provided for doing the study?
2. **Dependent variable (DV).** What was the dependent variable (DV), state it? Was it “behavior” as defined in behavior analysis?
3. **Dimensional quantities.** State the dimensional quantities and units used for measuring the DV.
4. **Dependent variable measurement.** How was the DV measured? With Direct or Indirect measurement? Automatic or human observation? Complete or incomplete observation? Continuous or discontinuous observation?
5. **Independent variable** What was the independent variable (IV)? Did the experimenters describe how they would control for extraneous variables? Did the IV match or link up to the experimental question?
6. **Accuracy, Reliability, Believability assessment.** Was Accuracy, Reliability, or believability assessed (for the DV)? How was it done? What did the experimenters find? Did what they find match up with the definitions of accuracy, reliability, or believability? For example, using IOA and claiming reliability is not a true statement.
7. **Procedural Integrity.** Did the experimenters assess the implementation of the IV (Procedural Integrity)? If so, how did they do it?
8. **Conclusion.** Based on all of your previous sections, evaluate the methods for the experiment you reviewed. Also, provide analysis for improving the reviewed study and how future studies might address the experiment with refined methods.

Research Paper Proposal (40 points)

Each student will submit a proposal for a single case experimental study. The proposal should include a review of the literature (4-5 pages) concluding with the purpose and experimental questions; a complete methods section including how data would be analyzed and displayed; and a reference list. The paper will have the following format:

Introduction (End section with statement and significance of the experimental question)

Methods

Setting

Participants

Materials

Dependent variable

Independent variable

Experimental Design

Procedures

Procedural fidelity (IV assessment)

DV assessment

Social Validity

Results

Data display

Quantitative analysis
References

Research Paper Presentation (20 points)

Each student, during the final class, will present their proposed single case research project which will be treated as a research meeting. Follow the format for a research presentation (intro, methods, AND hypothetical data/discussion). The symposium will be open to all doctoral and faculty in special education. Audience members will provide feedback on the design/methods. Actual presentation length (without questions and discussion) will last between 10-15 minutes.

Assignment Notes:

1. All assignments are to be typed -- double-spaced, 12 pt., Times, Bookman, Times New Roman or equivalent font (exception: observation or assessment data does not need to be typed; however, assignments/reports related to that data must be typed) and due by the start of class (11:00am).
 - a. Late assignments will be accepted up to 48 hours after the original due date (11:00am on Wednesdays) at a 20% grade reduction.
 - b. No assignments will be accepted after this time. *Special circumstances will be considered if discussed with me PRIOR to the assignment being late.*
 - c. Any handwritten assignments or assignments not following afore mentioned format will be returned during the next class, considered late (20% penalty), and due via email (or dropped off to my office) by 12:00pm the next day. If the assignment is not in my email inbox or office by 12:00pm, it will not be accepted.
 - d. Suggestion: Please hand in your assignments on time and follow the correct format the first time.
 - e. With the exception of late submissions, all assignments will be returned to you at the next class session

2. In order to ensure my grading system is fair and accurate, you may choose to challenge *any* grade you receive. Please submit your request in writing to me no later than 2 weeks from receiving the graded item. This request should include the graded item, an explanation of why you feel the grade received is inaccurate or unfair, and an explanation of the grade you feel you should have received. I will consider these requests and make changes in situations where I either made a mathematical error or where I feel I unfairly penalized one or more students. In some situations, I may ask for you to resubmit a graded item if I believe many students may have been impacted – so, please KEEP all graded items until the end of the semester.

<u>Evaluation</u>		<u>Grading:</u>	
Weekly Questions (11 @ 5 Each)	55	A	(100 – 93.75%)
Article Review paper/presentation	35	A-	(93.74 – 89.75%)
Research Proposal	40	B+	(89.74 – 87.75%)
Research Proposal Presentation	<u>20</u>	B	(87.74 – 83.75%)
Total Points =	150	B-	(83.74 – 79.75%)
		C+	(79.74 – 77.75%)
		C	(77.74 – 73.75%)
		C-	(73.74 – 69.75%)
		F	(<69.74%)

Course Outline, Schedule, and Readings:

Date	Readings due for class	Assignment Due
1 Jan 7	Introduction and Syllabus S & T 1	
2 Jan 14	S & T 2-3; Kennedy 5	Weekly Questions – Friday Prior! 11 th
No Class MLK day		
3 Jan 28	S & T 4-5	Weekly Questions – Friday Prior!
4 Feb 4	S & T 6	Weekly Questions – Friday Prior!
5 Feb 11	S & T 7	Weekly Questions – Friday Prior!
6 Feb 18	S & T 8-9	Weekly Questions – Friday Prior!
7 Feb 25	S & T 10	Weekly Questions – Friday Prior!
8 Mar 4	Kennedy 9 - 10 S & T 11 (259-270)	Weekly Questions – Friday Prior!
No Class Spring Break		
9 Mar 18	Kennedy 11 S & T 11 (272-283)	Weekly Questions – Friday Prior!
10 Mar 25	Kennedy 12, 13, 14 S & T 11 (270-272; 283-292)	Weekly Questions – Friday Prior!
11 Apr 1	S & T 12-13	Weekly Questions – Friday Prior!
12 Apr 8	Kennedy 16 and Wolf Article	Weekly Questions – Friday Prior!
13 Apr 15	None	Single Case Research Article Review Presentations and Paper Due Research Proposal Paper Due
14 Apr 22	None	Research Proposal Presentations

Routines and Procedures:

1. Readings - assigned readings are listed on the course schedule and you should complete them prior to class. Keeping up with the course reading is essential as it will provide background information as well as resource material pertinent to class lecture, discussion, and activities.
2. Bring your textbooks to class on days for which you have a reading assignment. We will be referring to them and using information from the texts during discussions and group activities.
3. Students are asked to use person-first language in oral and written communication.
4. In order to more effectively track communications (and any decisions/agreements made); please provide the instructor with requests and messages in writing, either by mail or on paper. Include your name and the date on all written communications. Though this may seem like an imposition, you will be thankful in the long run, as this simple accommodation assures that your questions and concerns will not only be addressed, they will be addressed in a timely manner (and the outcomes recorded/remembered as well!).
5. Cell phones are to be turned off and put away, unless you have made prior arrangements with me because of a distinct permanent or temporary need (e.g., young children at home; an ailing parent). In such a case, the cell phone should be put on vibrate and you should answer or return the call outside the classroom. No text-messaging while class is in session.

Academic Integrity: <http://www.pitt.edu/~provost/ail.html> in this course will be expected to comply with the University of Pittsburgh's Policy on Academic Integrity. Any student suspected of violating this obligation for any reason during the semester will be required to participate in the procedural process, initiated at the instructor level, as outlined in the University Guidelines on Academic Integrity. This may include, but is not limited to, the confiscation of the examination of any individual suspected of violating University Policy. Furthermore, no student may bring any unauthorized materials to an exam, including dictionaries and programmable calculators.

Students with Disabilities: Disability Statement - If you have a disability for which you are or may be requesting an accommodation, you are encouraged to contact both your instructor and Disability Resources and Services (DRS), 140 William Pitt Union (412) 648-7890, drsrecep@pitt.edu, (412) 228-5347 for P3 ALS users, as early as possible in the term. DRS will verify your disability and determine reasonable accommodations for this course.

DIL Grievance Procedure: <http://www.bc.pitt.edu/policies/policy/02/02-03-02.html>

The purpose of grievance procedures is to ensure the rights and responsibilities of faculty and students in their relationships with each other. When a student in DIL believes that a faculty member has not met his or her obligations (as an instructor or in another capacity) as described in the Academic Integrity Guidelines, the student should follow the procedure described in the Guidelines (p. 16) by (1) first trying to resolve the matter with the faculty member directly; (2) then, if needed, attempting to resolve the matter through conversations with the chair/associate chair of the department; (2) if needed, next talking to the associate dean of the school; and (4) if needed, filing a written statement of charges with the school-level academic integrity officer.

The more specific procedure for student grievances within DIL is as follows:

1. The student should talk to the faculty member to attempt to resolve the matter.
2. If the matter cannot be resolved at that level, the student should talk to the relevant program coordinator (if the issue concerns a class) or his or her advisor.
3. If the matter remains unresolved, the student should talk to the associate chair of DIL (currently Dr. Crawford).
4. If needed, the student should next talk to the SOE associate dean of students (currently Dr. Gunzenhauser). If the matter still remains unresolved, the student should file a written statement of charges with the dean's designated Academic Integrity Administrative Officer (currently Dr. Dr. Gunzenhauser).

Clearances:

This course includes assignments that require you to spend time in schools. All students working with or observing children in public and private schools, IUs and vocational-technical schools are required to provide the Coordinator of Clinical Practice in the Department of Instruction and Learning with the following clearances:

- Federal Criminal History Record
- Pennsylvania State Criminal Record Check
- Pennsylvania Child Abuse History Clearance

If these clearances are not turned in by the end of the drop/add period, the student must drop any class requiring school visits. Furthermore, if there is a criminal infraction on any of these clearances, it is likely that the Coordinator of Clinical Practice will be unable to find a school placement for the student, and the student will be required to withdraw from the class. Students who have criminal infractions on their clearances should consult the Coordinator of Clinical Practice as early as possible for advice on whether a placement will be likely. Decisions about permitting students to observe or do other tasks in a school are made by the school district and the principal. The University cannot guarantee that a person with criminal infractions on their clearances will be permitted to do assignments in a school. While state law bars certain offenders from schools, districts often impose more extreme requirements.

Confidentiality:

You are responsible to maintain the confidentiality of all the students you work with in field placements related to your coursework at the University of Pittsburgh. When writing or doing assignments for courses or speaking about your field experience and the students you work with use pseudonyms (not initials) for students', teachers' and schools' names. In public, it is your responsibility to keep written assignments and any other materials bearing the names of students, teachers or staff secure from the view of others.