
Laboratory in Adolescent Development

Fall 2013

Instructor:

Nancy Darling

Office hours Monday 1:30-3:30 and Friday 9-10:30 in 228B Severance

All reading materials for the class are available through Blackboard.

Description and Goals:

The goal of *Laboratory in Adolescent Development* is very simple: to teach you how to do professional quality research in adolescent development. This is a course in the craft of research: a how-to course. To that end, the course is designed in a **workshop mode** where students are heavily involved in shaping their own experiences. This is not a course for listening or reading, it is a course for doing. It is not for the passive, nor for the faint of heart.

There are five specific goals for the class

- To gain an understanding of development during adolescence and the unique perspective developmentalists bring to psychology;
- To gain familiarity with a variety of techniques for studying adolescents, including key methodological issues, appropriate use of different techniques, and key do's and don'ts;
- To learn the norms and skills required to work in a professional research laboratory, including working within a team framework, working with large, extant datasets, developing a unique research question embedded in the literature, and carrying through a project from inception through analysis and presentation;
- To further develop your strong verbal presentation and writing skills;
- To strengthen your statistical sophistication and skills.

During the course of the semester you will also learn to keep a lab notebook and strong annotated bibliography, and develop a better understanding of APA writing style. Because of the structure of our data, you will also learn Hierarchical Linear Modeling, a regression based statistical technique suitable for studying classrooms, families, couples, or longitudinal change over time.

Modus Operandi

Each person in the class will write a COMPLETE SCIENTIFIC RESEARCH PAPER suitable for submission to a selective developmental psychology journal. That's a pretty tall order. You will work in teams of two or three throughout the process. (People who really want to work alone may do so, but you will miss out on an important component of the intended learning experience of the class. It is hard to work in groups. It takes practice. This is an opportunity to learn.)

Here is how I see the process:

- Identify a research area and write a brief literature review providing an overview of the current state of the field.
- Develop 3 different ideas for research questions you are interested in addressing that emerge from your literature review.

- After discussing this with your group and Prof. Darling, you will choose one question and write a research proposal in which you expand your literature review, develop your questions and hypotheses, and propose measures and a basic methodology.
- You will develop the analyses that will form the basis of your Methods section. This will include:
 - Developing your measures, including calculation of appropriate statistics, such as Cronbach's alphas, to ensure they are valid within your current sample.
 - Examining the interrelationship of your variables.
 - Developing a thorough understanding of your sample, including understanding how missing data contributes to sample attrition.
- Draft the Methods section in APA style, including all appropriate tables.
- Begin preliminary analyses, beginning with exploratory graphical analyses, proceeding through univariate relationships, then developing a more complete model.
- Develop final model and draft Results section
 - NOTE: Because of the nature of the data, all final models will require HLM analyses.
- Develop final draft of Introduction, re-focusing your argument around the storyline you have decided to develop based on your analyses.
- Draft your Discussion section, making sure that there is a clear connection between the Introduction, Results, and Discussion sections and that all points raised in the Discussion have a foundation in the Introduction.
- Finalize your Methods and Results Sections, including Tables.
- Finalize your Introduction and Discussion.
- Write your Abstract.

As you can see, this is a cumulative, iterative process. Research isn't linear! Along the way, we will engage in a lot of discussion, do a number of supportive readings, and listen to lectures and do activities that I hope will provide you with insight into the research process and into different techniques. I will be presenting almost every week. More than half of each class will be devoted to working on your project every week. You will also be presenting. Sometimes you'll be presenting your ideas in process. Sometimes you'll be talking about a paper you've read. You will be making informal presentations and discussing things with your group throughout the process. At the end of the semester you will be presenting your research to us all so that we can share your triumph.

The Products

You will produce three concrete products for this class: a lab notebook, an annotated bibliography, and a final paper. The ability to key a lab notebook and annotated bibliography are essential to any good researcher. I will be conducting spot checks of your notebook and bibliography throughout the semester. You'll also note that there are several times during the course of the semester that I request that you meet with me. These meetings are not optional – they are an important part of your learning experience, will help ensure you don't get off track, and part of how I will evaluate your ongoing progress.

Grading

Your semester grade will be determined by:

- 25% Class participation. This means coming to class prepared, working productively during your time in class, and meeting with Nancy when required. Students who are not meeting responsibilities to their groups will have that reflected in their grade.
- 25% Annotated bibliography and lab notebook.
- 25% Drafts and other written work.

○ 25% Final project

Any student who violates ethical standards for the conducting of research, including breaching confidentiality of our participants or plagiarism, will receive an F in the class and will not be able to further participate in the laboratory experience. They will also be asked to refer themselves for violation of the honor code.

Students who are not contributing to their group can be ‘divorced’ and will continue working on their project alone or may join another group who is willing to adopt them.

<i>TENTATIVE Schedule</i>	
Sept 5	<p>In class:</p> <ul style="list-style-type: none"> • Intro to Adolescence • Introduce Projects • Discuss Process • Write: Advantages and disadvantages of each project • Decide on a dataset • Forward search from key papers on Adolescence, Adolescent Romantic Relationships, and Adolescent Privacy
Sept 12	<p>Who and what are we studying?</p> <p>For class:</p> <ul style="list-style-type: none"> • Read Pyrczak & Bruce, Appendix A and Chapter 1. This is what we’re shooting for! • Begin building Refworkss database, with notes on readings and potential reading list for project • Begin lab notebook: Develop a list of research questions that are emerging from the field with your thoughts. • Three page outline summarizing the major characteristic of the age period you are focusing on in terms of social and social cognitive development. You should have identified key figures or theoretical approaches in each area. <p>In class:</p> <ul style="list-style-type: none"> • Identify key developmental changes in adolescent social relations from childhood through late adolescence. What is developing? • Identify major theoretical or research approaches to your area of interest. • Find people with concordant interests who might make good potential research partners.
Sept 19	<p>For class:</p> <ul style="list-style-type: none"> • Three one paragraph research proposals describing your question, relevant literature, and how you would operationalize your project in the available databases. If you want to work with a partner, you should have identified one by now. You can work together on this assignment. • Identify additional references that will be helpful in these projects. Take notes on the two most

	<p>promising.</p> <p>In class:</p> <ul style="list-style-type: none"> • Working in small groups, discuss and critique the pros and cons of each proposal. Tentatively decide on your proposal and have your final decision approved by Nancy. <p>To turn in:</p> <ul style="list-style-type: none"> • Three paragraphs with note indicating your tentative choice of topic. • Spot check: Refworks
Sept 26	<p>For class:</p> <ul style="list-style-type: none"> • Strong Refworks based reading list with annotations on those pieces you have identified as most important. • Research proposal that includes a literature review, questions and hypotheses, operationalization of key variables, and identification of key controls. MOST importantly, put together a table or graph that illustrates what would your results would look like if your hypothesis were correct. This will form the basis of your final paper! <p>In class:</p> <ul style="list-style-type: none"> • Three minute presentation with 2 minutes for Q and A. You may use one prop to help us understand your ideas: a handout, a poster, or a single visual. • Peer review and critique of written proposals <p>Out of class:</p> <ul style="list-style-type: none"> • Make an appointment to discuss your proposal with Nancy
Oct 3	<p>For class:</p> <ul style="list-style-type: none"> • Further development of your annotated bibliography • Identify the sources of all your measures and add them to Refworks • Outline how you are going to measure each of your key constructs <p>In class:</p> <ul style="list-style-type: none"> • Nancy will review coding, building variables, and evaluating internal, predictive, and discriminate validity • Begin working with dataset <p>Required lab notebook reflection on the research process thus far: What did you do well? What would you do better or differently next time? What have you learned?</p>
Oct 10	<p>For class:</p>

	<ul style="list-style-type: none"> • Preliminary coding of all variable, establish validity, and adjust accordingly <p>In class:</p> <ul style="list-style-type: none"> • Draft Methods Section • Spot check: Refworks and lab notebook.
Oct 17	<p>For class:</p> <ul style="list-style-type: none"> • Preliminary draft of Introduction and Methods Section (these can be in finished outline form, but must be readable for peer review). <p>In class: Introduction to HLM</p> <p>Out of class: Meet with Nancy to go over progress to date. Bring your peer reviewed draft.</p>
Oct 31	<p>For class:</p> <ul style="list-style-type: none"> • Finish up building up your variables • Plan of analysis outlining how you will proceed with your analyses <p>In class: How to proceed with your analyses graphically, doing simple preliminary analyses, and slowly refining a model. Have final model approved by Nancy.</p> <p>Required lab notebook reflection on the research process thus far: What did you do well? What would you do better or differently next time? What have you learned?</p>
Nov 7	<p>For class:</p> <ul style="list-style-type: none"> • Continue with analyses. Finalize model. <p>In class: HLM in SPSS.</p> <p>Turn in: In class, lay out exactly how your project fits into an HLM framework and have approved by Nancy</p>
Nov 14	<p>For class:</p> <ul style="list-style-type: none"> • Continue analyses. <p>Spot check: Lab notebook</p>
Nov 21	<p>For class:</p> <ul style="list-style-type: none"> • Draft of Results section <p>Out of class: Meet with Nancy to check results and analyses</p> <p>Required lab notebook reflection on the research process thus far: What did you do well? What</p>

	would you do better or differently next time? What have you learned?
Dec 5	For class: <ul style="list-style-type: none"> • Revised Introduction, Methods, and Results sections
Dec 12	For class: <ul style="list-style-type: none"> • Complete draft, including Discussion and References In class: Spot check of notebooks and Refworks. Required lab notebook reflection on the research process thus far: What did you do well? What would you do better or differently next time? What have you learned? Out of class: Meet with Nancy
Finals Week	Meet at Nancy's house during Finals period. Present results. Celebrate accomplishments. Turn in final paper.