

**Rutgers, The State University of New Jersey**

**15:262:625:01 Design Research Practicum**

**Spring 2016**

**Mondays 4:50 PM - 7:30 PM**

**GSE Room 314**

Instructor: Eli M. Silk	Email: eli.silk@gse.rutgers.edu
Office Phone: 848-932-0827	Office Location: GSE 321B
Office Hours: By arrangement	Prerequisites or other limitations: Admission in the Ed.D. program at Rutgers GSE.
Mode of Instruction: <input type="checkbox"/> Lecture <input checked="" type="checkbox"/> Seminar <input type="checkbox"/> Hybrid <input type="checkbox"/> Online <input type="checkbox"/> Other	Permission required: <input type="checkbox"/> No <input checked="" type="checkbox"/> Yes Directions about where to get permission numbers: Office of Academic Services, Ericka Diaz, ericka.diaz@gse.rutgers.edu

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**Course Description**

**Course Catalog Description:**

The purpose of this course is to provide students with an experiential opportunity to begin conducting their own research. The primary goal will be for students to plan, implement, and analyze a series of small-scale pilot studies. The course will be held in a workshop format in which students will present regularly and get feedback from the instructor and their peers. The students will learn to justify their methodological choices by drawing from and citing prior published research. These methodological choices include the use of particular samples, measures, procedures, research designs, and analysis plans. Students will also get experience analyzing their data and presenting the results both in written and oral form.

**Goals:**

The learning goals for this class, along with how they will be assessed, are as follows:

<b>Learning Goal</b>	<b>How the Goal will be Assessed</b>
Learn how to write a successful dissertation proposal.	Drafts of segments of dissertation proposal.
Develop the knowledge base of theory and empirical research needed to justify the design of an DLE dissertation study and to write the proposal describing this study.	Reports and discussions of readings in oral presentations. Drafts of segments of dissertation proposal.
Gather pilot data and use the results to improve your dissertation project.	Presentations on plans and activities for piloting data. Written reports on piloted data.

**Required Texts:**

There is no required textbook to purchase for this course. All of the required articles and chapters will be posted online on the class Sakai website.

*Important Note:* This syllabus, along with course assignments and due dates, are subject to change. Any major changes will be clearly noted in a course announcement in class and on the course website.

## Grading Policy

### **Evaluation of Written Work:**

#### *Grading Breakdown by Course Assignment:*

1. Attendance and Participation	20%	Weekly
2. First Pilot Project Data Collection, Analysis, and Write-up	20%	Due 3/7
3. Second Pilot Project Data Collection, Analysis, and Write-up	20%	Due 4/11
4. IRB Proposal Submission Draft	20%	Due 5/9
5. Dissertation Proposal Method Section Draft	20%	Due 5/9

#### *Other Ungraded (but Suggested) Assignments:*

To-Do/Goals List	Due 2/1
First Pilot Data Proposal	Due 2/8
CITI Module Completion Certificates (prerequisite for IRB Proposal)	Due 2/15

#### *Grading Scale:*

- A = 90-100
- B+ = 85-89
- B = 80-84
- C+ = 75-79
- C = 70-74
- F = Below 70

### **Academic Integrity:**

Any violation of academic honesty is a serious offense and is therefore subject to an appropriate penalty. Refer to <http://academicintegrity.rutgers.edu/integrity.shtml> for a full explanation of policies.

## Course Requirements

### **Website:**

<http://sakai.rutgers.edu>

### **Attendance Policy:**

Because this is a small seminar it is critical for your own learning and the learning of your peers that you attend all classes, arrive on time, and stay engaged throughout the class time. If you have to miss a class or be late for any reason, please contact me ahead of time.

## Evaluation

### **1. Attendance and Participation**

Each week this involves attending class and joining in discussions. Some weeks this may involve online synchronous or asynchronous discussions. We will discuss your various projects as well as selected assigned readings.

Every week, I will expect that you have made some progress on your pilot work. And on some weeks, you will be expected to share your progress as a designated presenter for that week. As the designated presenter for a week, it will be your choice how to use that time in order to best serve your needs. Some options include: (a) making a formal presentation about the current state of your design, your data, or your analysis; (b) having the class read an article relevant to your work in preparation for a discussion about how that article could be applied in your work; or (c) using the time as a working session in which you pilot data instruments with the rest of the class as test subjects or have the class analyze data with you.

I also expect that your discussions will show that you have read all required assignments, are actively trying to connect them to your own project and to the project's of your classmates. Most class discussions will involve reading and discussing components of each other's projects, and so it also essential that you provide critical but supportive feedback to your classmates to help them move their projects forward.

### **2. First Pilot Project Data Collection and Analysis**

This assignment involves:

1. Planning a pilot project;
2. Planning and developing all materials, documents, and activities needed for the pilot project;
3. Implementing the pilot project;
4. Making presentations on pilot project plans and results in class; and
5. Handing in a formal write-up of the pilot project.

Assessment will NOT be based on whether the results come out as you hope or expected. Instead, your work will be evaluated on:

- (i) How well prepared and well grounded in the literature the project is;
- (ii) How well aligned your questions and methods are with each other; and
- (iii) How thoroughly you consider the results and learn from them.

You should use this as an opportunity to try out different ideas that you are considering, and also to see how you might analyze those ideas.

It is acceptable in this first pilot project to only use small portions of your designed learning environment or even to do no intervention at all and simply focus on piloting measurement instruments (e.g., pre- or post-tests, surveys, interview protocols, etc.). Also for this first pilot

project, it is acceptable (although not required) to use the class (me and your classmates) as your participants and to use class time during your designated presentation time to implement your pilot project.

### 3. Second Pilot Project Data Collection and Analysis

This assignment involves all the same things as the first pilot project. I encourage you to use this second project to build off the results of the first pilot project and to improve or refine your methods or materials. You may also use this second pilot project as an opportunity to expand your pilot work into other aspects of your dissertation project that you may not have gotten to in the first pilot project (e.g., more of your designed learning environment).

For this second pilot project, you will be expected to use participants and to conduct the activities outside of the class. You can still think broadly about where to find participants, such as family, friends, or colleagues. However, the closer you can get to testing your work with the actual population that you intend to use for your dissertation work, the better this project will be for you.

### 4. IRB Proposal Submission

This involves submitting to the IRB, if you haven't done so already. When you submit the IRB will be up to you, but will depend on the kind of pilot work that you intend to conduct and whether IRB approval is required prior to conducting such work. We will discuss each of your individual cases in class, but the Rutgers IRB provides the following guidelines:

*7. Pilot Studies. A pilot study is typically defined as an initial or smaller-scale investigation or a study to either test out new experimental designs (including survey or instrument development) or methods of treatment. Pilot studies are synonymous with feasibility studies, where the investigation proposed is planned to identify various issues (e.g., relating to design of an instrument, analysis of power concerns and recruitment strategies) to determine that the larger study of the same subject matter has the greatest potential to successfully test the intended research hypotheses. Pilot studies involving human subjects are considered human subject research and require IRB review. A researcher planning to conduct a pilot study must provide sufficient details to address how a smaller scale investigation is worth pursuing with a goal of obtaining results that may add to the generalizable knowledge while minimizing any anticipated risks to the subjects. There must be a well-detailed literature review and most importantly, the researcher must justify the need for the number of subjects required. (Source: <https://orra.rutgers.edu/irb-review>)*

I expect to read and approve your full IRB proposal at least two weeks prior to your intended submission date. Finally, as a precondition for final approval of your IRB proposal, you must also complete the CITI training modules:

<https://orra.rutgers.edu/irb-human-subjects-certification>

## 5. Dissertation Proposal Method Section Draft

You will be expected to provide write-ups of your work throughout the course in planning, implementing and analyzing your pilot studies. These write-ups will help to form the basis for your dissertation proposal, especially the Method section. I will provide regular feedback on your pilot study reports, including suggested revisions for incorporating into your dissertation proposal method section draft.

### Reading List

Readings will be tailored to students' interests and needs, and will be assigned one week in advance. There are no required texts, as readings will be distributed as PDFs on the class website.

However, a useful text to have is the American Psychological Association (APA) publication manual:

American Psychological Association (2013). *Publication manual of the American Psychological Association, Sixth Edition*. Washington, DC: American Psychological Association.

Each major assignment should be formatted using the formal standards articulated by APA publication manual for a manuscript. Those standards include, but are not limited to:

- Times New Roman, 12 point font
- One inch margins on all sides
- Page numbers
- Cover page that includes title, course, student, professor, date
- Left alignment with default spacing between words and letters
- Double spaced lines with only one hard return between indented paragraphs
- Proper in-text citations and a separate bibliography or reference section

Refer to the APA manual for further details. Also, the following website is a good resource, although it is not as complete as the manual: <https://owl.english.purdue.edu/owl/resource/560/01/>

### Presentation Schedule

Each student will be the designated presenter 4 times throughout the course. This will be an opportunity for you to share your current progress, to get feedback on ideas or materials, to collect pilot data from the rest of the class, to work through analysis of data, or to present results of your pilot projects. The schedule for presentations will be worked out in the first few weeks of class. Suggested topics for each round of presentations:

1. Round 1 - Collect data for first pilot
2. Round 2 - Present analysis for first pilot and get feedback on ideas for second pilot
3. Round 3 - Collect data for second pilot
4. Round 4 - Present analysis from second pilot and get feedback for the future

## Course Schedule by Week

Week	Topics	Readings	Assignments
1: 1/25	Intro to Course Goals and Planning Literature Searches	No readings	
2: 2/1	Surveys and Questionnaires	(Entwistle & McCune, 2004) (Schellings, 2011)	<i>Goals List or To Do List</i>
3: 2/8	Cognitive Interviewing	(Karabenick et al., 2007) (Koskey, Karabenick, Woolley, Bonney, & Dever, 2010)	<i>First Pilot Data Proposal</i>
4: 2/15	Video Data	(Derry et al., 2010)	<i>Complete CITI Modules</i>
5: 2/22	Protocol Analysis	(Fox, Ericsson, & Best, 2011)	
6: 2/29	Clinical Interviewing	(Russ, Lee, & Sherin, 2012) (Sherin, Krakowski, & Lee, 2012)	
7: 3/7	TBD	TBD	<i>First Pilot Data Write-up</i>
Spring Break			
8: 3/21	Interrater Reliability	(Hallgren, 2012)	
9: 3/28	Coding Data	(Chi, 1997) (Hammer & Berland, 2014)	
10: 4/4	Mental Models and Conceptual Change	(Vosniadou, 1994) (Vosniadou, Ioannides, Dimitrakopoulou, & Papademetriou, 2001)	
11: 4/11	Interaction Analysis	(Jordan & Henderson, 1995)	<i>Second Pilot Data Write-up</i>
12: 4/18	TBD	TBD	
13: 4/25	TBD	TBD	
14: 5/2	TBD	TBD	
15: 5/9	TBD	TBD	<i>IRB Submission Draft Proposal Method Section Draft</i>

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