Semester-Long Project
Option B: Student Work -- Insights into Student Ideas / Thinking

Participant Requirements: Group (2 - 3) or Individual

Purpose: A purpose of this assignment is for you to systematically investigate student ideas through the examination of student work. You will also apply principles from your readings to interpret your results and to make connections to the findings you present.

Description: This project is designed to get you involved in performing educational research to better understand what ideas students have related to a particular concept area in your discipline. You will:

- identify the concept of interest (e.g., student ideas about seasons; student ideas about pressure; student approaches to solving limiting reactant problems; student approaches to translating equations into graphical representations).
- conduct a small literature search to see what’s already known about student ideas in this area and identify possible interview questions/tasks
- collect student work, and
- analyze the results.

Your project timeline should include the possibility of collecting an initial sample of student work to try out your methodology of analyzing the data, leaving time to revise your collection and analysis procedures for a second round of collection.

Examples: Some examples of research questions in various disciplines are shown below:

APPM: Analyzing students’ abilities to prove convergence of a sequence using the epsilon-N definition.

Timeline and Due Dates: This semester-long assignment requires multiple stages of feedback and revision. Here are the major due dates and weeks that you will consult with your LA course instructor:

- Week 3: Part I Project DUE: Project decisions; concept focus; project timeline
- Week 5: Part II Project DUE: Initial collection & analysis plans
- Week 7: Part II.5 Project DUE: Revised collection & analysis plans
- Week 10: Part III Project DUE: Data w/ initial analysis
- Week 14: Part IV Project DUE: Poster, Written report and online template

Documenting the Process: Your documentation begins with information about the concept area of interest and proposed collection and analysis methodology. You will collect student work, analyze your results, and produce a written or video summary of your findings, including recommendations for instructors. You will receive help in all of this from your mentor in the consultation sessions. See Student Work Rubric for exact grading criteria.
Consultation Meetings: You will have two consultation meetings with a mentor (Professor Manning or TA Kelly). Each individual or group will sign up for a 10-20 minute consultation session that will take place during office hours (and other scheduled times). During the meeting you will discuss and develop your ideas.

Preparation for Consultations: You must complete each section of the online template by the day each section is due. Your mentor will read through this and assign a grade according to the rubric. Your mentor will also use what you reported in the template to plan for the consultation. The more you report, the more you can get out of your consultation sessions. During your consultation session, your mentor will work with you or your group to help you articulate and refine your ideas, interpret your results, and make connections to your readings.

Final Product: Your group will develop a poster that shares your findings and recommendations for future educators (instructors, LAs, etc.). This will include:

- Title, group members, university, department(s), courses, date
- Brief description of the concept area of interest and your motivation for doing this work
- Brief description of your data collection and analysis methods
- Summary of main findings
- Discussion of your findings that includes ways in which readings / concepts from the LA course inform your conclusions
- Implications for instructors / instruction -- advice for others!!

In addition, you will submit a complementary written report with the same information, plus:

- Concise (<500 words) abstract describing project and key finding(s).
- Support for your findings, in the form of quotes, examples of student work, video clips (with permission)
- Full APA citations of all sources (see here and here for the basics)

DO NOT refer to information contained in the template. This is meant as a standalone product. It is OK to include links to, for example, long assignment handouts.

Make sure subject’s real names are not included in this document or anything that it links to.

Make sure all links included in this document are shared to “Anyone with the link can view.”