

CS 3205 - HCI in Software Development
Assignment 4: Evaluation
Mark Floryan

SUMMARY:

For this assignment, you have two objectives. Firstly, you will be evaluating your prototypes formally. The objective here is to perform an experiment that effectively answers your design questions. Your second objective is to coalesce all of your work from the semester into one long technical report.

PART 1: Evaluation:

For this assignment, you will be developing, executing, and presenting the results of an evaluation of your prototypes. Thus, you will begin by describing the evaluation that will be done in detail. You will continue then by collecting data as described in your evaluation plan, and conclude by presenting results regarding the strengths and weaknesses of various designs based on your observations.

PART 2: FINAL TECHNICAL REPORT

You will then take all of your writings from this semester, and merge them into a uniformed, fluid document describing the project you've done. This part, in theory, will require very little additional writing. The challenge here is to construct a single document that presents your work in a unified manner.

EVALUATION WRITE-UP:

You will be required to produce a document outlining your evaluation plan, summarizing your data collection methods, and presenting your evaluation results. This should conclude with a recommendation for how to proceed with the design of your system. You may very well find that the conclusions of your evaluation are not black and white. This is fine, but it is important that you draw the best conclusions you can from the study you design, even if these lessons are complex and extremely contextualized.

I suspect your submissions (just the evaluation part) will be approximately 6-10 pages or so. Your write-up might contain the following sections:

- **Evaluation Plan:** *What specifically are planning to evaluate? What are the research questions you plan to tackle? How are you going to use your prototypes to collect data that helps resolve these issues? How are you going to control for as many confounding factors as possible? What are your hypotheses regarding the evaluation? How might you interpret the differing potential results that you obtain?*
- **Methodology:** *Give some more detailed information on how you collected your data. Exactly how many people used your system? Were they peers from the class, or did you find users outside of class? If peers, what are some of the limitations in not testing with a more accurate user base? If not peers, then what were the demographics of your testers? How long did they use the system? What tasks were they asked to complete?*
- **Summary of Results:** *Present the data that you collected in an understandable manner. What trends or patterns emerged? Don't spend time interpreting the results in this section. Instead, present the data in some form bluntly. Make sure to provide tables, charts, and graphs where appropriate if this makes the presentation of the information more clear.*

- **Conclusions:** What answers to your design questions were obtained? How do you interpret the data you collected? What does this mean in terms of the design(s) that you recommend for your project moving forward? Be detailed here, don't just say that 'prototype A was better'. Why was it better? Was it better in ALL situations? Maybe some aspects of another design were strong in a different context?

REQUIREMENTS / DELIVERABLES:

You will deliver one final technical report. For this final report, I recommend following this structure:

- **New Abstract:** Produce a new title and abstract that encompasses the entire piece of work.
- **Combine:** Place the previous homework assignments back to back within your new document, including the evaluation description you've just written. Make sure to strip out the other abstracts and superfluous information. You might choose to present each assignment as a different 'chapter' of the final write-up.
- **Add Final Chapter:** Add the final section/chapter describing your evaluation in detail.
- **Seam:** Add the text necessary to make the paper read seamlessly. This will mostly involve adding transition paragraphs that connect the concepts from each section to one another.

Fix: You may need to fix issues within each assignment that cause misalignments between sections. For example, if you wrote about particular prototypes and then evaluated different prototypes for some reason, then you have to reconcile this in the paper in some way. The paper should be clear as a standalone document.

GRADING:

Grading will be similar to homework 2 and 3. All members of each group will receive the same grade. Below is an approximate description of each grading interval:

- **10:** Paper is well thought out and robust. The group described a simple, but useful evaluation of their prototypes that represents a serious attempt at answering the research questions identified. Regardless of the results, the group collecting data in a manner that was sensible. The group interpreted the results appropriately and providing the best recommendation possible given the data that was collected.
- **9:** Paper fulfills the qualifications outlined for an '10' but contains some minor, but very noticeable flaws. Perhaps the evaluation contained a misinterpretation of the data, or some minor but useful insights were overlooked.
- **8:** Paper fulfills the qualifications in the assignment but has more than a few noticeable flaws. Paper could have received an A- but contained enough flaws that should have been noticed.
- **7:** Paper has at least one MAJOR flaw. The paper makes a strong effort at fulfilling the requirements but demonstrates a major misunderstanding of at least one concept from class. For example, perhaps the groups evaluation plan did was not designed to answer the research questions specified.
- **6:** Paper demonstrates more than one major misunderstanding of the concepts and/or displays a lack of effort in understanding and applying the concepts from the course. Paper still contains a modicum of useful content.

- **5 or below:** *Paper is poorly written and organized, demonstrates multiple misunderstandings of the material, and displays a lack of effort on the part of the group.*