

GRP06 : usability study

=====overview

The goal of this assignment is to perform a simple usability test and to incorporate the results of the test into design changes in your prototype. In the real world, this kind of “pilot” study would be used to redesign your experiment before running the study with a larger pool of participants.

=====the assignment

Prototype

You will be performing this test using the latest version of your interactive prototype. As you are working on the pilot study you should also be working to add more functionality to your prototype based on the feedback you received in your interactive prototype presentation.

Participants

You will need to find three unique participants (i.e., volunteers who are not in this class and who aren't your friends) to work through your benchmark tasks. Also remember that participation must be voluntary. You should get the participants to sign an informed consent form and obtain other demographic information (e.g., age, sex, education level, major, experience with your type of tasks and application, etc.) Do not re-use subjects who participated in your low-fi tests.

Benchmark Tasks

Your test will use three tasks. They should include 1 easy task, 1 medium task, and 1 difficult task. These tasks should give good coverage of your interface; if they don't then this is a good chance to redesign your tasks! These tasks do not need to be the same as the tasks in your low-fi prototype study – pick the most important and representative tasks for the current incarnation of your application.

Measures and Observations

Although it will be hard to get statistically significant bottom-line data with only three participants and a rough prototype, you should measure some important dependent variables to get a feel for how this is done (i.e., task time, # of errors, etc.).

You should concentrate on process data. For example, you should instruct your participant to think aloud. You should make a log of critical incidents (both positive and negative events). For example, the user might make a mistake and you notice it or they might see something they like and say “cool”. Set up a clock that only the observers can see (one or more of you should

observe), and write down a log containing the time and what happened at that time when a critical incident occurred.

If your subject consents, you can record video or audio so that you can review the study at a later time. Remember to note the time of critical incidents so that you find them easily later.

Procedure

You will give the participant a short demo of the system. Do not show them exactly how to perform your tasks. Just show how the system works in general and give an example of something specific that is different enough from your benchmark tasks. You should write-up a script of your demo and follow the same script with each participant.

The participant will then be given task directions for the first task that tells them what they are trying to achieve, not how to do it. When they are finished, you will give them the directions for the next task, and so on. Each participant will perform all 3 tasks. You will want to keep the data separate for each task and participant.

Results

You must report your results (values of dependent variables, summary statistics, and summaries of the process data) and draw some conclusions with respect to your interface prototype. You should also say how your system should change if those results hold with a larger user population. This should be the most important part of the write-up. We want to understand how you would fix your system as a result of what you observed.

=====grading criteria

Your group should turn in one PDF on bcourses. Your write-up should follow this outline with separate sections for the top-level items (number of pages per section are approximate). It should be at most 5 pages, plus appendices and sketches that describe what you did. List the responsibilities of each group member.

Group Name (0.5 points)

- Not just “Group Z”. Should be the full name of your group

Team Responsibilities (0.5 points)

- One bullet point for each person with their name + responsibilities for this assignment

Implementation and Improvements (2 points)

- Bullet list of feature improvements since the interactive prototype (< 1/2 page). The descriptions do not need to be detailed. Add screenshots, but keep them small so they don’t take up lots of space.

Method (6 points)

- Participants [1 paragraph] (who — demographics — and how were they selected)
- Apparatus [1 paragraph] (describe the equipment you used and where you did your test)

- Tasks [$< 1/2$ page] (you should have this already from previous assignments, but you may wish to revise it). Number out and describe each of the tasks and have a bullet point list for what you looked for when those tasks were performed.
- Procedure [1 paragraph] describe what you did and how – include at least one photo per participant, if they consent. If they don't, say so. (Keep the pictures small.)

Test Measures (3 points)

- Describe what you measured and why (bullet points encouraged)
- [Examples: Time taken to ..., # errors committed by the user when they ..., etc]

Results and Discussion (20 points)

- Results of each test
- What you learned from each user study
- Summary of takeaways from all your studies
- Document any changes that you plan to make in your prototype as a result of the study

Appendices (3 points)

- Materials (all things you read — demo script, instructions — or handed to the participant — consent form, task instructions)
- Raw data (i.e., critical incident logs)

=====*submission instructions*

These assignments are to be submitted on bcourses as a PDF, one per group.