

School of Electrical Engineering and Computing SENG2260 – Human-Computer Interaction

Workshops 6/7 + Lab 7: Prototype Testing

You should have the following prepared for this session. *[If your material is not ready, use the first session to plan and finalise the material for the next testing session.]*

- The **goals of the usability test**, that is, what you are going to test, why this needs to be tested and how will it be tested. This segment will form part of the risk assessment section of the assignment.
- Your **prototype** should be ready. For your assignment you will need to submit facsimile of your prototype (usually scans or photographs).
- A briefing that you plan to give to the users. Refer to the **ethical concerns** section over page.
- The **tasks** you wish the users to test. This is so every user gets the same description of the tasks. Make sure each task description is clear and complete.
- An observation sheet for **each test**. If you are testing time, have an area where time is recorded, if you are counting “clicks” make that clear. Be sure to have a section to record tester comments (if you are not recording the test electronically).

The plan will be part of the submission for assignment 1 so you should stick to it as much as possible. If there is a need to deviate from the plan, give a written description of what was done differently and why the changes were made.

Do not worry if users point out things that are “obvious” or things you feel you should have found before submitting the design to a test. This often happens and is the main point of low fidelity testing.

For this test you will be testing other SENG2260 students and evaluating the prototype. If you find you cannot test all scenarios in the time devoted to the session, arrange to meet with your testers later or use one of the other testing sessions.

Useful websites:

<https://www.webcredible.com/blog/8-guidelines-usability-testing/>

<https://www.usability.gov/how-to-and-tools/methods/usability-testing.html>

<http://www.usabilitybok.org/methods>

Ethical Concerns in Working with Test Users

Serving as a test user can be very distressing, and you have definite responsibilities to protect the people you work with from distress. We have heard of test users who left the test in tears, and of a person in a psychological study of problem solving who was taken away in an ambulance under sedation because of not being able to solve what appeared to be simple logic puzzles. There's no joke here.

Another issue, which you also have to take seriously, is embarrassment. Someone might well feel bad if a video of them fumbling with your system were shown to someone who knew them, or even if just numerical measures of a less-than-stellar performance were linked with their name.

The first line of defence against these kinds of problems is voluntary, **informed consent**. This means you avoid any pressure to participate in your test, and you make sure people are fully informed about what you are going to do if they do participate. You also make clear to test users that they are free to stop participating at any time, and you avoid putting any pressure on them to continue, even though it may be a big pain for you if they quit. You don't ask them for a reason: if they want to stop, you stop.

Be very careful about getting friends, co-workers, or (especially) subordinates to participate in tests. Will these people really feel free to decline, if they want to? If such people are genuinely eager to participate, fine, but don't press the matter if they hesitate even (or especially) if they give no reason.

During the test, monitor the attitude of your test users carefully. You will have stressed that it is your system, not the users, that is being tested, but they may still get upset with themselves if things don't go well. Watch for any sign of this, remind them that they aren't the focus of the test, and stop the test if they continue to be distressed. We are opposed to any deception in test procedures, but we make an exception in this case: an "equipment failure" is a good excuse to end a test without the test user feeling that it is his or her reaction that is to blame.

Plan carefully how you are going to deal with privacy issues. The best approach is to avoid collecting information that could be used to identify someone. We make it a practice not to include users' faces in videos we make, for example, and we don't record users' names with their data (just assign user numbers and use those for identification). If you will collect material that could be identified, such as an audio recording of comments in the test user's voice, explain clearly up front if there are any conditions in which anyone but you will have access to this material. Let the user tell you if he or she has any objection, and abide by what they say.

A final note: taking these matters seriously may be more than a matter of doing the right thing for you. If you are working in an organization that receives research funds you are obligated to comply with formal rules and regulations that govern the conduct of tests, including getting approval from a review committee for any study that involves human participants.

From: Task Centered User Interface Design, Lewis and Rieman (2008)