Usability Assignment

The assignment is to do a minimum of one round of usability testing for your project. You should define a plan, execute it, and then report on your findings. You will turn in a report covering the activities.

You will plan with the client and/or the project team to decide the scope. You should write this part of the document prior to running any sessions.

Next, you should run the study.

Third, you should capture the results and produce a set of findings and recommendations that address the findings.

Reports often include audio recordings, images or videos of sessions to emphasis or illustrate points, which can make the report both more engaging and ease the amount of text you have to write. **However, if you want to include video, you will need approval of Northeastern’s IRB. In industry, you would have had the subject sign a consent form.** You can include screen shots of what is being tested and indicate the focus of a test. Especially with capturing the data, short videos with users having problems often can make the case for an issue more convincing. Remember, everyone may not agree with everything you find – especially if they are very accustomed to the way something works or they are deeply invested in the system.

Your report should include the following sections:

(Borrowed very liberally from [https://www.usability.gov/how-to-and-tools/methods/planning-usability-testing.html](https://www.usability.gov/how-to-and-tools/methods/planning-usability-testing.html) - marked in Book Antiqua font)

<table>
<thead>
<tr>
<th>Required Section</th>
<th>Description</th>
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<tr>
<td>Scope</td>
<td>Describe the system under test and how much of it the testing will cover. E.g. the prototype/site as of a specific date; enrollment for service.</td>
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<tr>
<td>Purpose</td>
<td>Define what you want to learn. Identify the concerns, questions, and goals for this test. These can be quite broad; for example, &quot;Can users navigate to important information from the prototype's home page?&quot; They can be quite specific; for example, &quot;Will users easily find the search box in its present location?&quot; In each round of testing, you will probably have several general and several specific concerns to focus on. Your concerns should drive the scenarios you choose for the usability test.</td>
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<tr>
<td>Session Plan</td>
<td>Describe where you will do the testing and how many sessions are planned. Describe how long you expect a session to last.</td>
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Indicate when and where you will do the test. If you have the schedule set, you may want to be specific about how many sessions you will hold in a day and exactly what times the sessions will be.

You will want to describe the sessions, the length of the sessions (typically one hour to 90 minutes). When scheduling participants, remember to leave time, usually 30 minutes, between session to reset the environment, to briefly review the session with observer(s) and to allow a cushion for sessions that might end a little late or participants who might arrive a little late.

**Equipment**

Describe the set-up you will use in the session.

Indicate the type of equipment you will be using in the test; desktop, laptop, mobile/Smartphone. If pertinent, include information about the monitor size and resolution, operating system, browser etc. Also indicate if you are planning on recording or audio taping the test sessions or using any special usability testing and/or accessibility tools.

**Participants**

Define how many subjects you intend to run and how you will recruit them.

Indicate the number and types of participants to be tested you will be recruiting. Describe how these participants were or will be recruited and consider including the screener as part of the appendix.

**Scenarios**

Describe the scenarios a session entails. This means describe the actual flows you intend to test.

Indicate the number and types of tasks included in testing. Typically, for a 60 min. test, you should end up with approximately 10 (+/-2) scenarios for desktop or laptop testing and 8 (+/-2) scenarios for a mobile/smartphone test. You may want to include more in the test plan so the team can choose the appropriate tasks.

**Metrics**

Describe how you will measure each session. There are two types of metrics and each metric should be categorized as *subjective* or *quantitative*.

Subjective metrics: Include the questions you are going to ask the participants prior to the sessions (e.g., background questionnaire), after each task scenario is completed (ease and satisfaction questions about the task), and overall ease, satisfaction and likelihood to use/recommend questions when the sessions is completed.

Quantitative metrics: Indicate the quantitative data you will be measuring in your test (e.g., successful completion rates, error rates, time on task).
There are several metrics that you may want to collect during the course of testing.

1. **Successful Task Completion**: Each scenario requires the participant to obtain specific data that would be used in a typical task. The scenario is successfully completed when the participant indicates they have found the answer or completed the task goal. In some cases, you may want give participants multiple-choice questions. Remember to include the questions and answers in the test plan and provide them to note-takers and observers.

2. **Critical Errors**: Critical errors are deviations at completion from the targets of the scenario. For example, reporting the wrong data value due to the participant's workflow. Essentially the participant will not be able to finish the task. Participant may or may not be aware that the task goal is incorrect or incomplete.

3. **Non-Critical Errors**: Non-critical errors are errors that are recovered by the participant and do not result in the participant’s ability to successfully complete the task. These errors result in the task being completed less efficiently. For example, exploratory behaviors such as opening the wrong navigation menu item or using a control incorrectly are non-critical errors.

4. **Error-Free Rate**: Error-free rate is the percentage of test participants who complete the task without any errors (critical or non-critical errors).

5. **Time On Task**: The amount of time it takes the participant to complete the task.

6. **Subjective Measures**: These evaluations are self-reported participant ratings for satisfaction, ease of use, ease of finding information, etc where participants rate the measure on a 5 to 7-point Likert scale.

7. **Likes, Dislikes and Recommendations**: Participants provide what they liked most about the site, what they liked least about the site, and recommendations for improving the site.

**Test Results**

Present the data collected, including when the data were collected.

Include an analysis of what the facilitator and data loggers recorded. Describe the tasks that had the highest and lowest completion rates. Provide a summary of the successful task completion rates by participant, task, and average success rate by task and show the data in a table. Follow the same model for all metrics. Depending on the metrics you collected you may want to show the:

- Number and percent of participants who completed each scenario, and all scenarios (a bar chart often works well for this)
- Average time taken to complete each scenario for those who completed the scenario
- Satisfaction results
- Participant comments can be included if they are illustrative.
Findings and Recommendations

Discuss the test results and make recommendations accordingly. This section should include both the good and the bad news.

List your findings and recommendations using all your data (quantitative and qualitative, notes and spreadsheets). Each finding should have a basis in data—in what you actually saw and heard. You may want to have just one overall list of findings and recommendations or you may want to have findings and recommendations scenario by scenario, or you may want to have both a list of major findings and recommendations that cut across scenarios as well as a scenario-by-scenario report. Keep in mind:

- Although most usability test reports focus on problems, it is also useful to report positive findings. What is working well must be maintained through further development.
- An entirely negative report can be disheartening; it helps the team to know when there is a lot about the Web site that is going well.
- Each finding should include as specific a statement of the situation as possible.
- Each finding (or group of related findings) should include recommendations on what to do.