# IMY 310 Project

# Phase 4 – Usability Testing

## Assignment Brief

The fourth step of the simple interaction design lifecycle model is evaluation. There are three general approaches to evaluation: usability testing, field studies and analytical evaluation. You will do a **usability test** to evaluate the acceptability and usability of your redesigned mock-up.

Plan and conduct a usability test to determine whether your product meets the requirements originally established and meets the needs of the target user group.

Finally, use the data gathered in the usability test to write a report on the performance of your product.

You should consult the following source for more information on conducting a usability test:

* Chapter 14 of your textbook

## Instructions

A usability test determines the ease with which typical users can work with a product. Usability testing uses user testing as an evaluation technique and “is usually performed in controlled settings and involves typical users performing typical, well-defined tasks”. A usability test also includes a user satisfaction questionnaire, which can be based on standard questionnaires or simply developed from scratch.

**Step 1: Plan your usability test’s setup**

Study Chapter 14 of your textbook to ensure that you understand how a usability test should be performed. It is of the utmost importance you prepare for your usability test by planning how you will portray yourselves to your user base, what you will say to them and how you will explain the purpose of the test itself. Remain professional, script what must be said and make sure you adequately explain your test and its purpose to your users. In your usability test report you will describe how this planning helped orient your users.

**Step 2: Plan the usability test itself**

Plan what your users will be doing in the usability test itself. Remember, you are not testing the *users*, you are testing the *product.*

**The following constraints apply to your usability test:**

* The test should involve a minimum of 5 and a maximum of 8 typical users. Typical means that the users should be from your intended user population.
* Each group has 1 hour allocated to do this test. Keep in mind the time needed to set up (about 10 minutes). This set-up time is included in your allocated hour. You must ensure that you are finished on time for the next group to start.
* Prepare 6 to 10 well-defined tasks for each user to perform given the goal of the evaluation.

**If you want to read more about usability tests, the following sources are a good starting point:**

* <http://www.usability.gov/methods/test_refine/learnusa/index.html>
* <http://www.uie.com/articles/successful_usability_test/>
* <http://www.webcredible.co.uk/user-friendly-resources/web-usability/usability-testing.shtml>
* <http://www.alistapart.com/articles/the-myth-of-usability-testing/>

**Step 3: Perform the usability test [50 marks]**

You will perform the test as follows:

1. Introduce the study, the product and your team to the users
2. Monitor the users as they perform their tasks. This will be the bulk of your work in the lab.
   1. For example: assign a success ratio to each tasks (1-5 or *not able to complete task*). You may have to set an upper limit for each task, e.g. if it takes longer than 3 minutes, mark as “not able to complete task”. Note the time taken to complete the task and any additional problems.
   2. You may use any quality measures that you deem appropriate.
3. Have each user fill out the satisfaction questionnaire you will have at hand.
4. Produce statistical data that indicates the success ratio per task, average time taken etc. Your choice of statistical data depends on the goals of your study.

* Ensure that you have a sheet for each user explaining the tasks that they need to perform.
* You will monitor users using screen recording software. Search for some freeware software and decide which suits you best.
* It is advised that you record all data on a notepad and then transfer it to a spreadsheet at a later time. This prevents you from being distracted from observing the user by having to use another computer.
* Bear in mind that you will need to test more than one user at a time in order to get through all of them before the end of the session. How you organise this is up to you.
* **Suggested materials to bring with you:**
  + A notebook and a pen to make notes.
  + Extra pens for users to fill in forms and questionnaires.
  + A flash disk on which to save potentially large screen recording files.

**Step 4: Report the results of the usability test [50]**

Write a report about your usability test using the following headings. Ensure that you adhere to word limits to avoid losing marks.

1. **Pre-test planning (250 words) [10]**

Describe the preparations you made for the usability test prior to performing it. Discuss how you chose your user base and why these users were chosen, how you decided on the specific tasks that needed to be performed and how you planned to interact with the users. Include any scripts you wrote to follow when interacting with users.

1. **Process followed (200 words) (5)**

Describe exactly how you conducted your usability test in reality. Explain how the study was conducted, what occurred and if any differences occurred between the planning and actuality of the usability test. Explain why you made the decisions you did in real-time if such differences occurred.

1. **Tasks performed by users (5)**

In bullet form, briefly describe each of the tasks that the users had to perform and why those tasks were chosen *(50 words per task)*.

1. **Evaluation methods (10)**

Describe the evaluation methods that you used and why you chose them. For example, if you chose to record the time taken per task, explain why you did so *(50 words per evaluation method).*

1. **Results (10)**

Provide summarised results from your study. You may do this in a variety of forms (see chapter 8), but you must use at least **two** different forms. E.g. tabulated data and a graph.

1. **Conclusions (300 words) (10)**

Describe the conclusions that you can draw from the data gathered. Make sure to explain how these results affect future versions of the product.

1. **Appendices (5)**

In the appendices, include the following:

* + Samples of all preparatory material (consent form, data gathering tools etc.)
  + Samples of filled in material (satisfaction questionnaires)
  + A CD with all the screen recordings of user activity.

## Evaluation

For this final phase of the project, it is required to show that you:

* Showed insights and critical thought when planning your evaluation.
* Prepared useful tasks for users to perform.
* Understood how to evaluate the tasks performed to gather the required data.
* Draw insightful conclusions based on the results of your usability study.
* Can perform a usability test that adheres to practical and ethical concerns.

The way in which you conducted your usability test will also significantly impact the impression of your overall work.

The project will qualify for a distinction if it not only conforms to the criteria above, but shows exemplary insight and planning. A project that merely conforms to the project guideline will qualify for a passing mark. A project that lacks criteria requested in the project guideline may not qualify for a passing mark.

## Mark allocation

50 + 50 = 100

**Total: 100 marks**

## Submission

* Sign up for a usability test slot using the booking sheet available at [] (this is on a first-come-first-served basis)
* Usability test sessions will be held on **9 May to 19 May (Monday-Thursdays)** from **10:00** to **16:00** in the **[SIT 7]** computer lab on level 4 of the IT building.
* Usability test sessions will 1 hour long. It is your responsibility to arrive **before** your session and ensure that your users do the same. You will need to factor setting up and down time into your hour-long session.
* You may use your own computers/laptops to do the testing.
* Failure to book a usability session will result in no marks.
* **Once you have selected your slot, you will not be allowed to change it.**
* Only one member of the group needs to book a session.

**Final hand-in:**

* The final project report is due on **Monday, 30 May 2016 during class time**.
* Additionally, you must also submit an electronic copy of your report as a PDF (with the file name **GroupName\_IMY310\_UsabilityTest.pdf** where **GroupName** is your group’s name) on ClickUP **before 12PM on Tuesday, 24 May 2016**. Only one group member needs to submit a copy.
* You can only receive marks if you submit both an electronic copy and a hard copy.

Plagiarism will not be tolerated, and any group suspected of plagiarism will receive 0 for this assignment.