

2022 Assignment 2 Brief

1 Overview

This assignment follows on from assignment 1 where you have developed a high-fidelity prototype. Your team is now required to write and conduct simulated usability testing of your high-fidelity prototype with HCI students (as participants). The analysis of the results of your usability testing will identify further improvements that can be made to your final high-fidelity prototype. These improvements should be made before handoff to developers.

This assessment is worth 30% of your grade.

All group members should contribute to all parts of the assignment and should identify contribution in the contribution matrix. Please collect evidence such as Toggl, minutes, Trello/Kanban, chat etc.

Upload your report with filename **x1_Assignment 2.pdf**, where x1 is your team number.

Important note: Make a copy of your Figma high-fidelity prototype from assignment 1. Do not modify your Figma prototype that you submitted as part of Assignment 1 as it should not change after being uploaded for marking.

There is no separate template for Assignment 2. All guideline details are provided here and refer to Lectures 7 & 8 for more details.

Using your new copy of your high-fidelity prototype, make any improvements that you have thought about or based on other feedback you have received, in preparation for usability testing.

2 Usability Testing and Handoff Report

2.1 Usability Testing Plan

Refer to Lecture 7 and 8 for details on usability testing. In this section, you are required to design an experiment to test the research goals relating to your high-fidelity prototype design. This involves writing a detailed **usability testing plan** including choices you make on the design of your experiment such as research goals, tasks, participants and more as detailed in the sections below.

Here is a simple example template: <https://medium.com/@userfocus/the-1-page-usability-test-plan-dbc8c3d7fb54>

Another useful template: <https://www.userzoom.com/usability-testing/how-to-prepare-a-framework-for-a-remote-usability-test/> (This whole page is useful – see template at point 7.)

If you need more space, use multiples of the template and/or use MS Word, Canva etc., or any other Usability Testing Plan template.

2.1.1 Define the Research Goal

Define your Research Goals in conducting the usability testing. High level examples:

- Is content presented in a way that is easy to find and understand?
- Can users complete a task successfully?
- Test a new feature
- Test an alternative design
- Test a design heuristic (high vs. low visibility)
- Test accessibility
- Measure user satisfaction with interface
- Identify product weakness
- Understand what users like best about your website
- Learning and training costs

Research goals can be user or system aspects.

User aspects are often the most important tasks the user should perform using your prototype.

- Users can't find a good pie recipe with Western Australian seasonal ingredients. (findability)
- Users can't estimate the cost of ingredients for a recipe (successful task completion)

System aspects are things like:

- Do users understand new features? (test new feature)
- Do users take too long to learn or complete tasks? (learning and training costs)

You can choose the number of research goals you want to test and whether they are user or system aspects.

2.1.2 Experimental Set-Up

Describe the set-up of your experiment. You might comment on if the experiment is in a 'lab', out in field, online (remote) etc., how long the experiment should take, what environmental conditions should be controlled (noise, light etc.)

How will you present your prototype to the participant? One way is to demonstrate your clickable app through your device (mobile phone, tablet). Figma prototypes are easy to run on devices when accessing the URL link on the device. Alternatively, you might be displaying your prototype using a web interface.

2.1.3 Facilitator

Describe the role of the facilitator. Who will facilitate your experiment? How will your facilitator give out instructions and lead the participant through the experiment? Decide whether they will be asking follow-up questions? Write script your facilitator will follow. Will they be listening or speaking during the experiment session? It may be that your facilitator gives them as little information as possible to understand the way they use your prototype. Why/Why not?

2.1.4 Task Scenario and Tasks

First set up your task scenario. Next detail the tasks you are instructing your participants to conduct as part of your experiment. Think about the tasks that will help you respond to the Research Goals. Decide if the tasks are open-ended or specific.

In Lect 7, some example tasks were:

- You would like to join MyRecipes. Please use the mobile app to create a user account and create your profile.
- You would like to plan a special dinner for six with both gluten-free and vegetarian options. Please use MyRecipes to plan your meal.
- As a person with low vision accessibility needs, please use the system in accessibility-mode and find recipes for lasagne.

Resource: <https://maze.co/guides/usability-testing/examples/>

2.1.5 A/B Testing

Develop alternative windows/workflows of at least two key tasks that are done using your prototype. I.e. you will need to develop some new windows in Figma. Ask participants to try both alternative workflows for each task and record data (metrics) from their process.

2.1.6 Task Sheet

Write a *task sheet* that instructs the user what to do in your experiment. Decide whether you will read the instructions to the participant, or if they will read the instructions themselves (and out loud as discussed in the lecture). Remember to avoid priming that will lead to bias. Make the wording clear and unambiguous.

Resource: Example task sheet (yours can be simpler)

https://docs.google.com/document/d/1_5Qu2JR9QE5LE6cK4eq9yJs-nXv2rIWWifcjacaiWdl/edit

2.1.7 Participants

Look to test around **5 participants** as close to a target user. Since this is a simulated test, for our purposes we need to **limit users to the HCI student cohort and use mock data**. (Our pool may not be close to the target user and this can introduce some incorrect findings). In industry, we would choose a person that has similar knowledge and contextual understanding, if a target user is not available.

Make sure your participant consents (using the Research Participation Agreement) and is comfortable testing your prototype. Make sure they are fully aware what you need them to do and allow them to stop at any time.

This is a good time to **contact any subject matter experts or advisors that have helped** you in your app development journey. You can show them the high-fidelity prototype and ask if they would like to review your prototype. Contact them as early as possible so that you can arrange a time with them before your assignment is due.

2.2 Piloting

You should pilot the proposed experiment within your team to make sure that your process is not problematic. Document your pilot here. Did you have to make changes after piloting?

2.3 Simulated Experimental Data Collection

What information would you collect in your simulated experiment? In the lectures, we talked about qualitative data. These can be observations (e.g. understanding if participants are confused, know how to use your app correctly, use your app in an unexpected way) and recording participant questions, survey data and others. Quantitative metrics include click rate, time, dwell time, conversion.

Collect some simulated data from your HCI student participants. You can also create some mock data to supplement – so use your creative license.

Tip: In-test and post-test question examples:

<https://xd.adobe.com/ideas/process/user-testing/usability-testing-questions-tips-examples/>

2.4 Analysis of Usability Testing Report

Write a report analysing and interpreting the results you have retrieved from your simulated usability testing. Here is an example of a Usability Testing Report. You can follow the framework but do not need to go into detail.

<https://library.xtensio.com/usability-testing-report-template-and-examples>

2.5 Final High-Fidelity Prototype Design

After analysing the results from the test, you will have some design improvements to make on your prototype. Write up what they are and improve your hi-fi prototype.

2.6 Handoff Report

After UI/UX designers complete their design and testing of their high-fidelity prototype they handoff the design to the development team.

Complete your Handoff Report. Include your final Figma high-fidelity prototype, font guidelines, colour palette, buttons (enabled, hover etc.), icons, graphics, components, space guidelines. You may also like to include chosen design system (e.g. Material Design), copy, gifs/animations, interactions, gestures, user stories, user flows etc. You can reuse work from Assignment 1.

You should make sure you include your Figma link where your application run from on a mobile device or tablet. Write out any instructions for using the prototype. (The School may use these as quick demos in the future).

Note that there are many automated handoff tools including Zeplin (<https://zeplin.io/>) which integrates with Figma, and Marvel (<https://marvelapp.com/>). Whilst these automated tools are out of the scope of this course you can check them out for inspiration. 10 automated handoff tools: <https://uxplanet.org/top-10-design-handoff-tools-for-designers-and-developers-81ba02618e33>

2.7 Contribution Matrix

Please include a visual matrix works better than a list/table.

Usability testing tasks: If you have explicitly divided up the usability testing of particular tasks to particular members of your group, it is good to note this here. In an ideal situation, if your team worked very collaboratively and evenly, you may decide it is not necessary to go into this detail.

2.8 Other

Use the same format as Assignment 1: cover page, contents, project management, references, appendix, and list files (.png/.jpg, .jam, .fig). No page limit but this a much smaller report just on the usability testing process and handoff.

3 Figma Files

Submit your .png/.jpg files and .jam .fig files that contain your working prototype.

4 Posters

You will need to create 2 posters – one conference style and one marketing style.

4.1 Conference Poster

Create a conference-style poster showing the processes you went through to create your final prototype. You might like to include the most important parts of your design thinking process including user research (surveys etc. and persona development), ideation on pain points and solutions, as well as most important functional requirements and non-functional requirements. You can show your low to high fidelity prototype evolution, decisions made and ideas accepted and rejected, and adherence to design principles and heuristics.

Create a poster with good flow, coherence and balance (content and design). Include images of your prototype windows and some of the user flow so that people can understand how to use your app. Include explanation and analysis, design decisions etc.

- More images and fewer words works well.
- Either landscape or portrait is fine.
- Use any suitable tool – Powerpoint, Canva, Adobe InDesign, Prezi etc.
- First, set the slide size - Size AO (841 x 1189 mm).
- Save your design in the highest resolution possible to avoid blur or pixelation.
- Annotate with red boxes and use text boxes to explain.
- If you use CMYK colour – your print colour will be as you see them.
- I will organise the printing of the AO size poster through Computing.

Resources:

<https://colinpurrington.com/tips/poster-design/>

https://www.une.edu.au/_data/assets/pdf_file/0004/177745/Create-Print-Ready-Posters.pdf

<https://www.prepressure.com/library/paper-size/din-a0>

Submit:

1. Printable version:

- Digital file saved in Size AO (841 x 1189 mm) at highest resolution possible
- Upload .png, .jpg and .pdf format

- Filename **X1_AO_conference.xxx** where X1 is team number
- This version is due on **23:55 Sunday 22nd May 2022**

2. Electronic display version:

- Digital file saved in Size AO (841 x 1189 mm) in 4K resolution (3840 x 2160)
- Upload .ppt, .docx, canva file etc **and** .pdf format
- Filename **X1_4K_conference.xxx** where X1 is team number

4.2 Advertising Poster

Create a high-level advertising poster showcasing the features and novelty of your high-fidelity prototype and how it can be used and how it helps the user. It is to catch attention and showcase your work without giving away all your analysis – i.e. future students can't leverage from it! These will be shown on the B314 EECMS electronic displays. Include images of your prototype windows and some of the user flow so that people can understand how to use your app.

Submit:

1. Electronic display version:

- Digital file in 4K resolution (3840 x 2160)
- Size TBA
- Upload .ppt, .docx, canva file etc. **and** .pdf format
- Filename **X1_4K_advertising.pdf** (where X1 is team number)

Tip: Remember to use great visual design principles (structure, hierarchy) that you have learnt in the lectures. I am sure you are noticing these more and more in advertising and digital communications now.

Please send through early versions if you would like to test how they look on the EECMS displays or check if they are OK to be printed.

Let me know if there are any issues with file formats, resolution, sizing, incompatibilities etc.

5 Curtin Ignition Submission

Please submit an application to Curtin Ignition.

Curtin Ignition runs from Sunday 4 September – Friday 9 September 2022. Read below for more details.

<https://study.curtin.edu.au/professional-development/executive-education/ignition/>

The application is only short ~1 page. Make a good effort of selling your idea and its novelty. I am happy to review and give you suggestions.

At Ignition, you will hear lots of real entrepreneur stories (many huge success stories from WA), hear from Silicon Valley venture capitalists, learn about IP, finance, branding, marketing, meet wonderful people, increase your network, attend clinics, and get a mentor (plus the catering is very good)!

Submit: Attach the PDF receipt you receive to say your application has been received.

Usually, they accept only one member per team.

There is nothing to stop you entering with another idea outside this unit!

Aside: You may also like to enter Curtinnovation if you have a very strong idea. (Best to speak to your expert advisor).

Curtinnovation: <https://engage.curtin.edu.au/entrepreneurs/curtinnovation-awards/> Closes 10th June 2022

General Curtin Commercialisation page: <https://engage.curtin.edu.au/entrepreneurs/>

6 *The Goopy GUIs Showcase* (poster exhibition and presentations)

***“The Goopy GUIs Showcase”* is going to be a 5-day exhibition to showcase our posters and hold our presentations.**

Date: Monday 30th May to Friday 3rd June 2022 (all of study week)

Time: 9:00 – 15:00. You can come watch presentations and view posters any time. Presentations will be running according to schedule linked on **BB Announcements page** (nominate your session now).

Location: Maths Boardroom in B314 (314.347A)

All welcome!

If you have a team member that is isolating, or required to be off-site, or overseas – please make them feel included by attending the showcase and giving them a video tour of the posters sometime during the week.

Audience: room capacity is ~30. Everybody is welcome to come and have a look at the posters and watch the presentations. I will be asking Computing staff members to browse the posters and vote, and some may join in to mark the presentations. Please feel free to invite your expert advisor – they will be delighted to see your progress. You can also invite friends to come along and support you or invite them to watch online.

Voting: please vote for **best poster** and also watch presentations (in-person or online) and vote for **viewer’s choice presentation**. You can’t vote for your own work.

7 Peer Review Form

Similar to Assignment 1, you will need to submit an individual peer review form. Form will be provided later. Attach any supporting evidence (Toggl, meeting minutes, emails, chats etc.).

You will also need to fill out any ITP metrics survey on team performance (email link will be provided).

8 Submission Checklist

1. Usability Testing and Handoff Report
2. Files (.jpg, .png, .jam, .fig)
3. Conference Poster (printable AO)
4. Conference Poster (digital 4K)
5. Advertising Poster (digital 4K)

6. Curtin Ignition submission receipt (which has the text of your submission).
7. Individual Peer Review Form and ITP metrics survey (link will be sent to you).

9 Due Date

- **The digital conference Poster file (size AO)** for printing is due **23:55 Sunday 22nd May 2022** so that I can get it to the printers and back in time for the exhibition.
- **Everything else for assignment 2** due end of last week of semester **23:55 Sunday 29th May 2022**