

# COMP3511/9511 Human Computer Interaction

## Tutorial and Laboratory 4 (Week 2)

### Agenda

- Surveying and Interviewing Users – *30 minutes*
- Requirements & Brainstorming – *30 minutes*
- Paper Prototype – *30 minutes*
- Marking – *30 minutes*

### Aim

In this laboratory, we will complete a data gathering exercise and then continue on to see what to do with this data. We will learn about preparing interview/questionnaire questions and conducting an online questionnaire about using Moodle to complete coursework. You will then conduct some brainstorming to gather requirements. Finally, you will then turn these requirements into a basic/draft paper prototype. You will be using your OneNote private design diary space to complete all exercises.

### Background Reading

#### *Surveying/Questionnaire Techniques*

Preece (2019), 5<sup>th</sup> ed., Interaction Design: Beyond Human-Computer Interaction, Chapter 8 Section 8.5 Questionnaires, p278-286.

#### *Interview Technique*

Preece (2019), 5<sup>th</sup> ed., Interaction Design: Beyond Human-Computer Interaction, Chapter 8 Section 8.4 Interviews, p268-278.

#### *Think-Aloud Protocol*

Preece (2019), 5<sup>th</sup> ed., Interaction Design: Beyond Human-Computer Interaction, Chapter 8 Section 8.6.2 Direct Observation in Controlled Environments – The Think-Aloud Technique, p296.

### **Interviewing Users/Questionnaires: Using Moodle for your coursework**

*30 minutes*

### Objectives

In this exercise, you will design an online questionnaire that will be sent out to another student in the class. You will complete this exercise in your design diaries. The questionnaire will be designed to find out more about how you use Moodle to complete and access coursework. In a real interview, this would have been a good opportunity to practice how you would greet a participant and provide them with details about privacy and ethics. Think about how you will address the privacy and ethics requirements for an online questionnaire.

## Interview Questions

In your private design diary OneNote space, start thinking about questions that relate to accessing course information (including forum use) on Moodle, and potentially the use of other platforms that you may have used in your other courses. How do these compare? Think about what you are trying to find out and let this guide your question design.

- How do you manage and access your coursework materials (including forums) on Moodle?
- How have you used other education platforms to manage and access your coursework?

You must have at least twenty questions noted in your OneNote design diary. Try and have a mixture of open and close ended questions. Your tutor will then randomly select some questions from a number of students and put them in the collaborative OneNote space for discussion and responses.

## Conducting the Interview/Sending out the questionnaire

Send your questionnaire to at least two of your fellow students in the tutorial group – reflect on what those answers mean and whether you have asked the “right” questions. Note down any trends you observed in your design diary.

## **Requirements and Brainstorming**

*30 minutes*

## Objectives

This laboratory exercise is designed to give you a better understanding of the early phases of the design process, going from ideas to requirements. The design process requires looking at stakeholders (which we have covered previously), developing questionnaires, analysing the feedback using scenarios, and then formulating our list of requirements. We will briefly discuss each of these concepts.

## Exercise

You have conducted your first interviews in this tutorial (in the form of online questionnaires or interviews with fellow students) and have obtained information about the use of Moodle and other platforms in accessing and managing coursework material. Now break up into groups of four and consider the trends that your group of four can see from their interviews. As a class, contribute to some facts that you have learnt from the interviews/questionnaires? Do they help to understand user needs better for the design of a learning platform?

Consider who the stakeholders are of Moodle and other learning platforms. What are their goals?

Picking one stakeholder group, write one a short scenario (per group) in your OneNote design diary space to get a better understanding of your user and their goals.

Are you now able to write some requirements based on the information that you have gathered? Brainstorm some functional and non-functional requirements in your design diary OneNote space. Your tutor will choose a few at random to share and discuss.

Please remember to keep track of all your brainstorming and ideas in your design diaries.

## **Paper Prototyping**

*30 minutes*

### Objectives

This laboratory exercise is designed to give you a better understanding of paper prototyping and its place in the design cycle. By the end of this exercise, you will become familiar with the process of paper design and will also reinforce your skills in heuristics evaluation.

### Exercise

Following on from the last Requirements exercise, you will be designing a learning platform that allows users to access and manage their coursework materials.

You will now INDIVIDUALLY create the first-pass paper prototypes for this project. You can either draw them directly into your OneNote design diary space, or use paper and pens to draw and take photos to upload into your OneNote design diary space.

In your design diaries, brainstorm and sketch out your ideas. Use this brainstorm as a basis for the rough sketches of each of the screens.

## **Marking and Wrap-up**

*30 minutes*

Consider and reflect in your design diary:

- What are some examples of different types of users and their potential respective tasks?
- What are some of the issues with interviewing subjects (especially now in the time of COVID? How easy/difficult is it recording the information?
- What are some limitations of questionnaires?
- What is the difference between functional and non-functional requirements?