

# HCI (CITS3201) Assignment 2

## Data Gathering and Analysis

**Aim:** The aim of this assignment is to test your ability to gather, analyse and present user data relevant to the design of an interactive product.

You will use a power point presentation and a report to present your work.

**DUE DATE: 4PM, THURSDAY 21<sup>st</sup> MAY IN WEEK 12.**

Your work is to be submitted *electronically using cssubmit* by 4pm on the due date. Please also submit the attached marking feedback sheet in hardcopy with signed green cover sheet to the CS student reception by the due date.

All late submissions will be penalised in accordance with the School of CSSE policy on late submission: “an item submitted after the deadline but within 24 hours of the original deadline, will have the mark reduced by the 20% penalty. If submitted between 24 hours and 48 hours late, a penalty of 40% applies, and so on, until the penalty reaches 100% after 4 days. You may choose to submit late assessment after 4 days, but it will contribute nothing to the unit's overall assessment.” For the full policy see <http://www.cs.uwa.edu.au/departamental/publications/latesubmission.html>

**Project Planning** This assignment is worth 15% of the total marks for CITS3201. You are expected to spend 20 to 25 hours on this assignment, including background readings. A cover sheet, detailing the marking criteria is attached. You must submit this cover sheet with your assignment. The work you submit for this assignment must be your own. In accordance with the School of CSSE Plagiarism policy “Any contribution from others ... *must* be acknowledged as part of the submitted work. Students must inform the unit coordinator if their work is done jointly or borrows heavily from others. Failure to do so is **plagiarism**.” This includes the use of templates, text book examples and all information from the web. For the full policy see <http://www.csse.uwa.edu.au/departamental/publications/policy.on.plagiarism.html>

### Assignment 2 Task

[Note that this assignment is based on activities described in your text book]

Assume that you have been employed to improve an interactive product such as a mobile phone, an iPod, a VCR, a photocopying machine, computer software, or some other type of technology that interests you. You may either redesign this product, or create a completely new product.

To do the assignment you will need to find a group of people or a single individual prepared to be your user group. These could be your family, your friends, or people in your class or local community group.

For this assignment you should:

- (1) Clarify the basic goal of improving the product by considering what this means in your circumstance.
- (2) Watch the group (or person) casually to get an understanding of issues that might create challenges for you doing this assignment and information that might enable you to refine your goals.
- (3) Explain how you would use each of the three data gathering techniques; interview,

questionnaire, and observation in your data gathering program. Explain how your plan takes account of triangulation.

(4) Consider your relationship with your user group and decide if an informed consent form is required (Box 13.2 from the text book will help you to design your own if needed).

(5) Plan your data gathering program in detail;

- i. Decide what kind of interview you want to run, and design a set of interview questions for your study. Decide how you will record data, then acquire and test any equipment needed and run a pilot study.
- ii. Decide whether you want to include a questionnaire in your data gathering program, and design appropriate questions for it. Run a pilot study to check your questionnaire.
- iii. Decide whether you want to use direct or indirect observation and where on the outsider—insider spectrum of observers you wish to be. Decide how you will record data, then acquire and test any equipment needed and run a pilot study.
- iv. Ensure that you have enough variety in data to demonstrate your skills at analysis and presentation as outlined below.

(6) Carry out your study but limit its scope. For example, only interview two or three people or plan only two half-hour observation periods.

(7) Reflect on your experience and suggest what you would do differently next time.

(8) Review the data you have gathered and identify any qualitative data and any quantitative data in your data set.

(9) Is there any qualitative data that could sensibly and helpfully be translated into quantitative measures? If so, do the translation and add this data to your quantitative set.

(10) Consider your quantitative data.

- i. Decide how best to enter your quantitative data into your spreadsheet software. For example, you need to consider how to handle answers to closed questions. Then enter the data and generate some graphical representations. As you are likely to have very few records, i.e. Respondents or interviewees, in your data set, you will have to think carefully about what if any graphical representations will provide meaningful summaries of your findings.
- ii. Is there any data for which simple measures such as percentages or averages will be helpful? If so, calculate the three different types of average.

(11) Consider your qualitative data.

- i. Based on your refinement of the study question 'improving the product' identify some themes from your quantitative data, e.g., what features of the product cause people difficulties, did any of your participants suggest alternative designs or solutions? Refine your themes and collate extracts of data which support the theme.
- ii. Identify any critical incidents in your data. This may arise from interview or questionnaire responses, or from observation. Describe these incidents carefully and choose one or two to analyze in more depth, focusing on the context in which they occurred.

(12) Collate your findings as a presentation and deliver them to a group of your peers.

(13) Review your presentation and any questions you received from your peers and consider where your analysis and presentation could be improved.

## ***Deliverables***

1. Power point presentation: submit the slides that you use for a roughly 20 minute presentation about your findings. There should be enough detail on each slide, or in the attached slide notes, so that the marker can reasonably guess what you say to accompany the slide.
2. Report on the tasks: For each of the tasks (1-13) above write a short account of your attempt. Compile this and submit as a word document (or similar). Attach a list of references.
3. Marking sheet: put your name on the attached marking feedback sheet and submit a hard copy.

## ***References:***

“Interaction Design: Beyond Human-computer Interaction” by Helen Sharp, Yvonne Rogers, and Jenny Preece. John Wiley & Sons; 2nd Edition edition (12 Jan 2007) .

## CITS3201 Assignment 2 Marking Feedback Sheet 2009

<b>Family Name</b>	
<b>Given Names</b>	
<b>Student Number</b>	
<b><i>POWER POINT PRESENTATION</i></b>	<b>20/100</b>
<i>Structure: organised, relevant</i>	/10
<i>Care: presented well, findings justified</i>	/5
<i>Interesting: Highlights included, good use of graphs, diagrams, summaries, graphics</i>	/5
<b><i>REPORT</i></b>	<b>80/100</b>
Overall presentation and readability	/5
T1: basic goal	/5
T2: identify issues from casual obs.	/5
T3: explanation of techniques, triangulation	/5
T4: relationship with group	/5
T5: Plan	/5
T6: carry out abbreviated study	/5
T7: Reflection on data gathering	/10
T8: Data Review	/5
T9: Translation	/2
T10: Quantitative Data analysis	/5
T11: Qualitative Analysis	/5
T12: Deliver presentation	/3
T13: Review of analysis and presentation	/10
References	/5
<b><i>MAJOR STRENGTHS</i></b>	
<b><i>MAJOR WEAKNESSES</i></b>	

**MARKER:**

**TOTAL MARK:**