



# **USER CENTERED DESIGN METHODS USED BY GRADUATED STUDENTS FROM REYKJAVIK UNIVERSITY**

Project report  
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# 1 INTRODUCTION

This project report presents the work in progress on a study where the focus was on the use of User Centered Design methods used by graduated students from Reykjavik University. The supervisor in this project is Marta Kristín Lárusdóttir lector at the Reykjavik University.

The challenges faced by me, as the researcher, are to work solely on exploratory study, where I create an online survey where I get to know how the respondents rate few of the UCD methods. Furthermore, the most important to make this study significant is to analyze the results from the survey.

## 2 PROGRESS

### 2.1 Time plan

The time plan is sorted by the milestones in the research paper or the phase it relates to. Total time spent on the project is 258 hours.

#### 2.1.1 Hours used for creating the online survey

Phase	Product Backlog	Task	Begin date	Hours
Survey	Questions	Create Questions	24.01.11	5
Survey	Survey	Run through	28.01.11	2.5
Survey	Survey	Create survey online	31.01.11	6
Survey	Letter to respondents	Write a formal letter	01.02.11	2
Survey	Survey	Fix questions	03.02.11	13
Survey	Respondents	Find respondents	03.02.11	0.5
Survey	Survey	Find a survey software	20.02.11	0.5
Survey	Survey	Put letter in envelopes	07.03.11	6.5
Survey	Second letter	Write a remind letter	19.03.11	1
Survey	Survey	Second letters in envelopes	21.03.11	5.5
Survey	Results	Reading the results	07.04.11	15

Total 57.5 hours

#### 2.1.2 Hours used for background reading and writing for the research

Phase	Product Backlog	Task	Begin date	Hours
Background	Articles	Read and write about articles	10.01.11	8
Background	Other final reports	Ólöf & Brigtt	12.01.11	4
Background	Other final reports	Hildur B. Vernudóttir	12.01.11	3

Total 15 hours

### 2.1.3 Hours used for writing the research paper

Phase	Product Backlog	Task	Begin date	Hours
Research Paper	Design of paper	Creating the paper	12.01.11	5
Research Paper	Writing	Introduction	17.01.11	13
Research Paper	Writing	Abstract / Samantekt	17.01.11	8
Research Paper	Spelling	Check Spelling	22.02.11	5
Research Paper	Writing	Method	13.03.11	15
Research Paper	Writing	Bakgrunn	13.03.11	15
Research Paper	References	Write references	13.03.11	3
Research Paper	Writing	Results	07.04.11	30
Research Paper	Figures	The online survey	14.04.11	3
Research Paper	Writing	Discussion	27.04.11	16
Research Paper	Grammar	Go over the paper	11.05.11	9
Research Paper	Writing	To create a survey	12.05.11	2

Total 124 hours

### 2.1.4 Hours used for making a risk analysis

Phase	Product Backlog	Task	Begin date	Hours
Risk Analysis	Risk Analysis	Create risk analysis	17.01.11	3

Total 3 hours

### 2.1.5 Hours used for creating project tasks

Phase	Product Backlog	Task	Begin date	Hours
Project plan	MS Project	Install MS Project	23.01.11	1
Project plan	MS Project	List the tasks	23.01.11	5
Project plan	MS Project	Fix tasks	03.02.11	4

Total 10 hours

### 2.1.6 Hours used for talking to supervisor

Phase	Product Backlog	Task	Begin date	Hours
Interview	Interview with Marta	# 1	20.01.11	1
Interview	Interview with Marta	# 2	28.01.11	0.75
Interview	Interview with Marta	# 3	02.02.11	1
Interview	Interview with Marta	# 4	18.02.11	1
Interview	Interview with Marta	# 5	23.02.11	1
Interview	Interview with Marta	# 6	02.03.11	1
Interview	Interview with Marta	# 7	08.03.11	1
Interview	Interview with Marta	# 8	09.03.11	1
Interview	Interview with Marta	# 9	23.03.11	0.5
Interview	Interview with Marta	# 10	30.03.11	0.5
Interview	Interview with Marta	# 11	15.04.11	1
Interview	Interview with Marta	# 12	26.04.11	1.5
Interview	Interview with Marta	# 13	09.05.11	0.75
Interview	Interview with Marta	# 14	13.05.11	1

Total 13 hours

### 2.1.7 Hours used for preparing and presenting Status Meetings

<b>Phase</b>	<b>Product Backlog</b>	<b>Task</b>	<b>Begin date</b>	<b>Hours</b>
Status Meeting	Status Meeting 1	Preparing	31.01.11	3
Status Meeting	Status Meeting 1	Print out	09.02.11	0.25
Status Meeting	Status Meeting 1	Presenting	09.02.11	1
Status Meeting	Status Meeting 2	Preparing	12.03.11	3
Status Meeting	Status Meeting 2	Presenting	15.03.11	0.75
Status Meeting	Status Meeting 3	Preparing	02.05.11	8
Status Meeting	Status Meeting 3	Presenting	05.02.11	1

Total 17 hours

### 2.1.8 Hours used for the Final Project lectures

<b>Phase</b>	<b>Product Backlog</b>	<b>Task</b>	<b>Begin date</b>	<b>Hours</b>
Lecture	Fyrirlestur 1	Final projects plan	18.01.11	0.75
Lecture	Fyrirlestur 3	References	15.02.11	0.75
Lecture	Fyrirlestur 4	About researches	22.02.11	0.75
Lecture	Fyrirlestur 5	Writing about researches	01.03.11	0.75
Lecture	Fyrirlestur 6	Presenting the project	03.05.11	1

Total 4 hours

### 2.1.9 Hours used for the Project Report

<b>Phase</b>	<b>Product Backlog</b>	<b>Task</b>	<b>Begin date</b>	<b>Hours</b>
Project Report	Writing	Time plan	30.04.11	2
Project Report	Writing	Risk Analysis	01.05.11	1.5
Project Report	Writing	Project Plan	11.05.11	1
Project Report	Writing	Post Mortem	11.05.11	5
Project Report	Grammar	Go over the paper	11.05.11	3

Total 14.5 hours

## 2.2 Project Plan

This project is not based on a formal project management framework due to the nature of the project. The project is primarily based on scope and timeframe, but is not cost restrained. At the beginning of this project I used Scrum. That did not work out as planned, presumably because I am working alone on this study and Scrum is initially created for teamwork. Furthermore, Scrum is a process for software development and therefore it does not fit for research projects. Then I decided to keep the tasks that I had already created and listed them in Microsoft Project, and there I put in begin- and end-dates on each task and the major milestones were created. Following the list of tasks was convenient, but as the project went on, the dates had to be changed. All tasks are listed in the time plan in chapter 2.1.

## 3 RISK ANALYSIS

### 3.1 Risk Analysis

No	Name	Proba- bility	Risk factor	Response
1	Not enough responses from the survey.	3	4	I intend to send a reminder to the respondents.
2	Not enough respondents to interview.	3	5	I intend to ask teachers about their work, and if they could help with finding companies.
3	Not enough time because of other courses.	2	4	I will only use 4 days a week for the research.
4	Incontrollable circumstances.	2	2	I will work harder and put extra day for the research.
5	Loss of information.	2	4	Keep Dropbox backup of every document made.

The risk analysis was made in the early stage of the research paper. The first one on the list was *“Not enough responses from the survey”*, which was tackled by sending a reminder, a second letter, to the respondents. That letter returned 50 more responses for the survey.

Number two was *“Not enough respondents to interview”*. This statement doesn't apply because there was no time to plan and take interviews.

Time for this project was not enough, and therefore I will conduct the interviews as an independent assignment this summer.

Incontrollable circumstances came up when I got sick for 10 days. That caused a little delay on the writing part.

My computer crashed and was unable to start up for 2 days. I luckily always sync my documents to Dropbox and therefore didn't lose any of my information or documents.

## 4 POST MORTEM EVALUATION

This project has gone well and there were no major obstacles that disrupted the study. At the beginning of the project, the focus was meant to be on all computer scientists and all software development companies in Iceland. After only 10 days the focus shifted to only graduated students from Reykjavik University. The project went well after this change.

At first, I started using Scrum as a framework for this project. When creating the first tasks, and imagine how the sprints would be like, I saw that was not a good framework for this project. The reason is that it is not flexible enough for this study, and also not a good framework for solo researchers. While the project went on, the survey was delayed because create questions for survey took more time than originally expected.

The original estimation was only made with dates, not the time spent, on each milestone. That estimation turned out to be highly underestimated and therefore I had to cut the interviews out of the project, because planning the online survey took twice as much time as estimated.

Because the only way to send out the survey was in by mailing a letter to every respondent, the hopes weren't high for a huge number of responses. My supervisor Marta Kristín Lárusdóttir, and I, decided to send out a second letter, to remind the respondents about the survey. That letter returned about 50 more responses, which was a great for the study. My supervisor was efficient in giving advice, and we shared a great passion for this survey, which made this project more enjoyable.

Overall, this project has been very informative for both the Icelandic software development companies and for the School of Computer Science.