

Effective User Feedback

Endurgjöf frá notendum skilar árangri



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User Feedback – One Activity in UCD

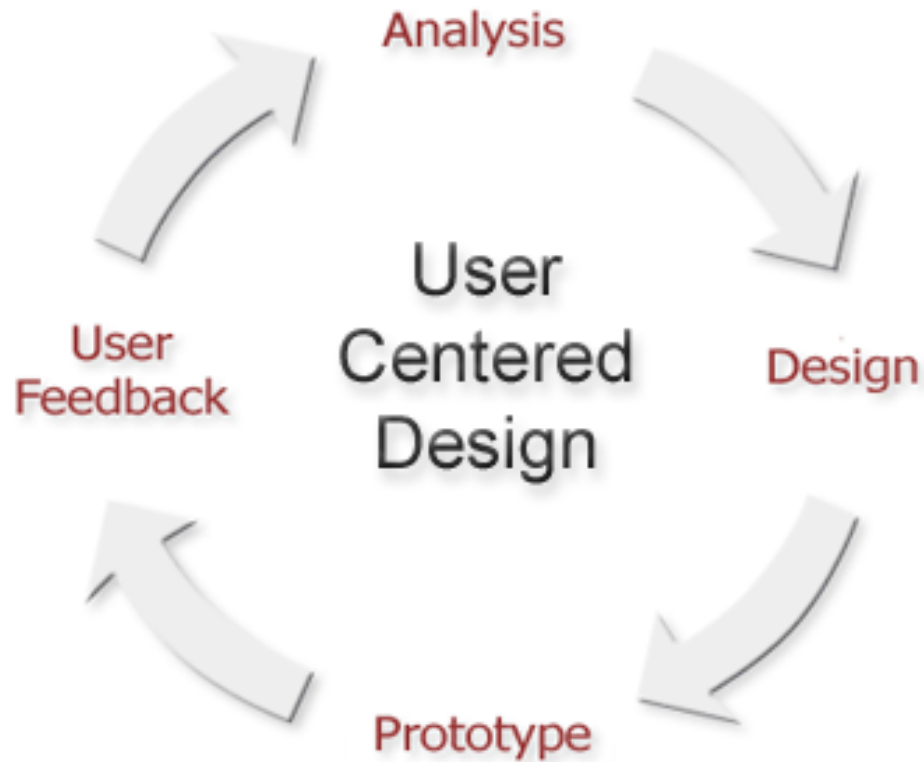
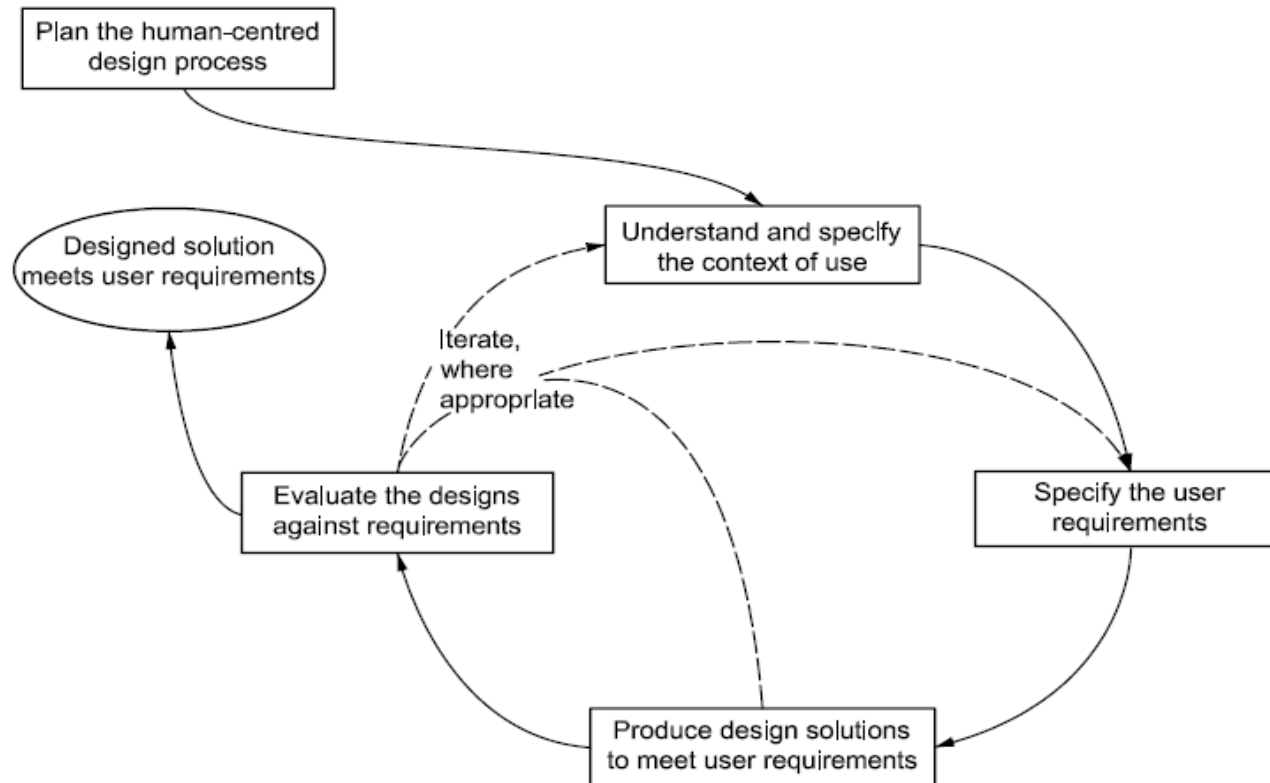
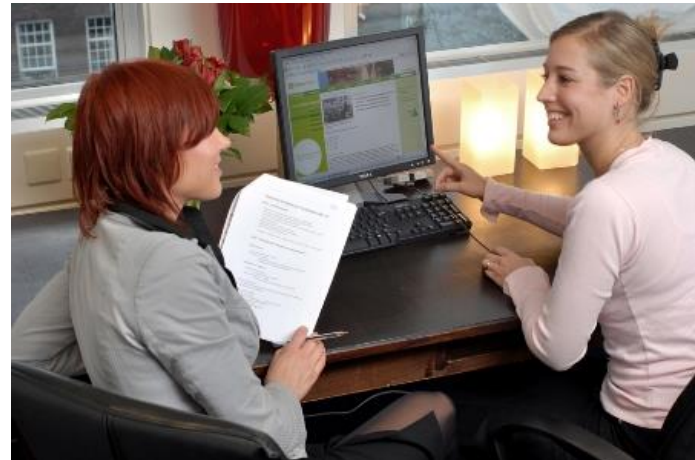


Figure From the ISO 9241-210 Standard



Formal and Informal Evaluation



Used to gather user feedback

Finding Usability Problems in Evaluation

- Usability problems defined:
 - according to Stone et al. (2005):
*A difficulty in using the user interface design that affects the **user's satisfaction** and the **system's effectiveness** and **efficiency** (p. 626).*
Usability defects can lead to confusion, error, delay or outright failure to complete some task on the part of the user (p. 627).
- Usability problems
 - Often used as a measurement for that the software is not easy to use



User Experience – A Broader Term

- Person's perceptions and responses resulting from the use and/or anticipated use of a product, system or service
 - ISO 9241-210 (2010)
- Note 1: User includes all the users' emotions, beliefs, preferences, perceptions, physical and psychological responses, behaviors and accomplishments that occur before, during and after user



User Feedback Can Also Be Gathered



In a workshop



With observation



At a meeting



With a demo

What is Effective User Feedback?

- To answer that we have written several papers:

1. Larusdottir, M. K., Haraldsdottir, O. and Mikkelsen, B. (2009):
User Involvement in Icelandic Software Industry
2. Larusdottir, M. K., Bjarnadottir, E., Gulliksen, J. (2010):
The Focus on Usability in Testing Practices in Industry
3. Larusdottir, M. K., Cajander, A, Gulliksen, J (2012):
***Informal Feedback Rather Than Performance Measurements
– User Centred Evaluation in Scrum Projects***
4. Larusdottir, M. K., Cajander, A, Gulliksen, J (2012):
The Big Picture of UX is missing in Scrum Projects
5. Jia, Y., Larusdottir, M. K., Cajander, A (2012):
The Usage of Usability Techniques in Scrum Projects
6. Cajander, A., Larusdottir, M. K., Gulliksen, J (2013):
Existing but not Explicit - The User Perspective in Scrum Projects in Practice

More information on www.ru.is/marta



Study 2: Survey study in Iceland

- Paper in 2010
- 25 participants from 18 companies all using Scrum



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Emma Rún Bjarnadóttir



Jan Gulliksen



The Main Questions

- What Scrum Activities are used?
 - How can we know that they are using Scrum?
- Do they think usability evaluation/testing is important?
 - Compared to other types of testing?
- If they are not conducting usability evaluation why is that?

Results – Survey on Scrum Projects

Testing technique	Yes, a lot	Yes, some	So and so	Little	No, not at all
Unit/component testing	22%	35%	26%	13%	4%
Integration testing	17%	35%	31%	13%	4%
System testing	39%	30%	22%	9%	0%
Acceptance testing	30%	44%	13%	13%	0%
<i>Usability testing</i>	4%	22%	35%	35%	4%
Alpha testing	4%	13%	17%	17%	48%
Beta testing	9%	22%	9%	17%	44%
Performance/load testing	0%	26%	26%	35%	13%
Security testing	4%	22%	8%	39%	26%

Results - Survey on Scrum Projects

Testing technique	Lack of training/ knowledge	Lack of budget	Lack of time	Other	N/A	N
Unit/component testing	36%	0%	32%	5%	27%	22
Integration testing	11%	0%	42%	0%	47%	19
System testing	7%	0%	47%	0%	47%	15
Acceptance testing	7%	0%	27%	7%	60%	15
<i>Usability testing</i>	20%	15%	35%	10%	20%	20
Alpha testing	0%	11%	11%	10%	68%	19
Beta testing	0%	11%	17%	11%	61%	18
Performance/load testing	26%	11%	32%	0%	32%	19
Security testing	47%	5%	16%	0%	32%	19

Study 3: Interview study in Sweden

- 2 papers in 2012
- 21 participants working for 14 companies using Scrum



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Åsa Cajander



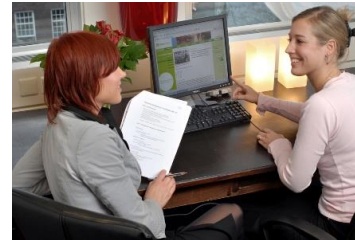
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Main Motivation

- Get better understanding on how it is to work on UCD activities in Scrum projects
 - We have analysed the data particularly on usability evaluation
 - We are working on analysing UCD activities
 - What do the successful IT professionals do?

Results: Evaluations



Type of evaluation		Empirical Quantitative Evaluation	Empirical Qualitative Evaluation			Analytical Qualitative Evaluation
Evaluation Method \ Professional Role	N	Measuring user performance and surveys	Observing Users	Asking user their opinions	Feedback from user surrogates	Inspection evaluation
Usability experts	5	2	5	4	1	5
Interaction designers	7	1	5	6	3	3
Business analysts	4	0	1	4	0	1
Developers	2	0	0	1	1	2
Scrum managers	3	1	2	3	2	1
Total	21	4	13	18	7	12

Results: Purpose of the Evaluation

Purpose of the Evaluation Professional Role				
	N	Feedback on Context of Use	Feedback on User Requirements	Feedback on Design
Usability experts	5	3	4	5
Interaction designers	7	5	6	6
Business analysts	4	3	4	3
Developers	2	1	0	2
Scrum managers	3	0	2	3
Total	21	12	16	19

This Study Changed our Understanding

- How the fact that they are working in Scrum
 - Affects their user centred design activities
 - One company used two Scrum boards
- The team members
 - generally had not that many hindrances
- It was harder for the Specialists
 - „I am like and ADD on“ – Usability expert-1
 - „The big picture of UX is missing“ – Usability expert -3
 - „My main tasks are conducted before the actual Scrum begins“ – Business Analyst-1

Study 5: Usability Techniques in Scrum

- Paper in 2012
- 49 participants in Scrum Projects mainly in Sweden



Yuan Jia



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Åsa Cajander



Main Questions

- How many participants
 - Have used each of the 13 user centred design techniques?
- How often are the techniques used?
- How do they rate the techniques they have used?

Results: Usage of Usability Techniques

Table 1. The Usage of Usability Techniques

Usability techniques	Used	Total	Percentage
Workshops	30	41	73%
Lo-fi prototyping	20	36	56%
Interviews	25	46	54%
Meetings with users	21	40	53%
Scenarios	17	36	47%
Digital prototyping	17	36	47%
Personas	15	35	43%
Field studies	17	40	46%
Usability goals	15	38	40%
Formal usability evaluation with users	11	36	31%
Informal usability evaluation with users	8	35	23%
Questionnaires	9	42	21%
Heuristic evaluation	4	35	11%

The Frequency of Using Usability Techniques

Table 2. The Frequency of Using the Usability Techniques

Usability techniques	Once a week or more	2 -3 times a month	7 – 12 times a year	2 – 6 times a year	Once a year or less	N*
Interviews	9%	13%	22%	44%	13%	25
Questionnaires	0%	0%	0%	25%	75%	9
Workshops	7%	7%	25%	50%	11%	30
Meetings with users	15%	10%	30%	35%	15%	21
Field studies	0%	0%	7%	53%	40%	17
Usability goals	21%	7%	29%	29%	14%	15
Scenarios	24%	24%	18%	24%	12%	17
Personas	6%	19%	13%	25%	38%	15
Digital prototyping	24%	12%	6%	35%	24%	17
Lo-fi prototyping	40%	20%	15%	20%	5%	20
Formal usability evaluation**	0%	0%	18%	82%	0%	11
Informal usability evaluation**	25%	25%	13%	50%	13%	8
Heuristic evaluation	0%	25%	0%	50%	25%	4

* N represents the number of respondents who had used the technique in their projects.

** With users participating.

Results: Survey in Sweden

Table 3. The Rating of the Usability Techniques

Usability techniques	Very good	Fairly good	Neither good or bad	Fairly bad	Very bad	N*
Interviews	28%	60%	8%	4%	0%	25
Questionnaires	0%	33%	56%	11%	0%	9
Workshops	38%	62%	0%	0%	0%	30
Meetings with users	38%	57%	5%	0%	0%	21
Field studies	59%	29%	12%	0%	0%	17
Usability goals	53%	20%	27%	0%	0%	15
Scenarios	35%	59%	0%	6%	0%	17
Personas	40%	40%	13%	7%	0%	15
Digital prototyping	59%	30%	12%	0%	0%	17
Lo-fi prototyping	50%	25%	20%	5%	0%	20
Formal usability evaluation**	73%	18%	9%	0%	0%	11
Informal usability evaluation**	25%	75%	0%	0%	0%	8
Heuristic evaluation	25%	50%	0%	25%	0%	4

* N represents the number of respondents who had used the technique in their projects.

** With users participating.

Main Conclusions From the Three Studies

- Formal user centred evaluation not that common
 - But it get high rating from the IT professionals
- Informal feedback gathering is very common
 - Most commonly to gather feedback on design
- Other techniques used frequently like
 - Workshops , low-fi prototyping, interviews and meetings
 - Of those workshops get highest rating
 - Blogs and social media
- Main hindrances
 - Many would like to do more off user involvement but lack time

Some reading

