



Stating Measureable Usability Goals

Department of Computer Science | Software Analysis and Design

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Overview of this lecture

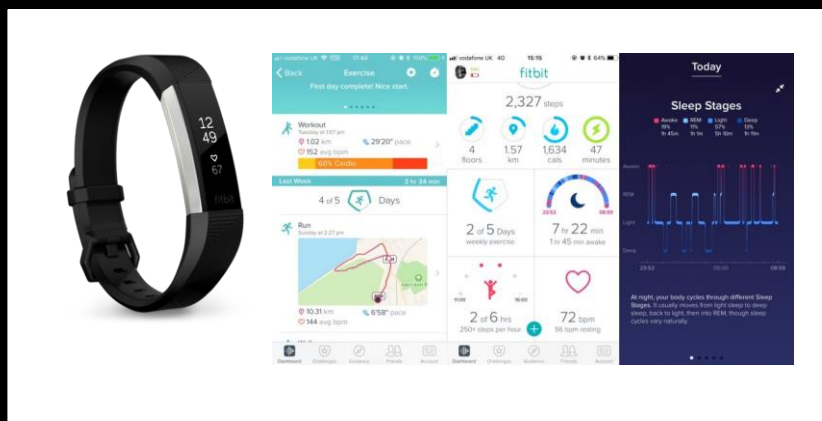
- Stating measurable goals
- Stating measurable usability goals
 - Effectiveness
 - Efficiency
 - Satisfaction
- Keeping track of usability goals
- Reading
 - ID 1.7, 14.3.1, 15.2



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I Have a Measuring Tool



Are these measurable goals?

- I want to sleep well
- I want to get 1 hours of deep sleep each night
- I want to get 1 hours of deep sleep each night for the next month
- I want to be in better condition
- I want to walk 10.000 steps each day
- I want to walk at least 10.000 steps each day for the next two months



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S - Specific

Be specific! There's no use in setting a generic goal because it won't suit you personally, however if you adapt the goal to apply to what you need, then it will be much more valuable to you. Of course you want to prosper in your field of work, but isn't everyone in the office thinking the same?



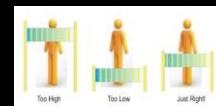
M - Measurable

Is it quantifiable? For instance going back to the example objective of selling more, you can measure this by the amount of units sold. Being a measurable goal allows you to identify when exactly it has been reached, i.e. what you desire as the end result



A - Achievable

The point of a target is to challenge and motivate yourself to complete a piece of work, if you was to set your target too high it can cause stress and so decreasing the chance of your target actually being within reach. Likewise if a target was too easy will inhibit you from pushing yourself and doing more. Setting yourself a reasonable target is crucial!



<https://www.professionalacademy.com/blogs-and-advice/what-are-smart-objectives-and-how-do-i-apply-them>

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R - Realistic

- 'I'm going to own a multimillion pound enterprise by the end of the month' Might be a tad too ambitious, don't get me wrong ambition is a leading trait, but maybe start off with something more realistic, remember all successful business people don't just become successful overnight.



T- Timebound

- Deadlines. Not something we like, but something most of us need. Especially if you're someone like me, who tends to procrastinate. For example, if you're sat at your desk knowing you have work to do, it's easy to get lost in the world of the internet looking at cute animal photos or funny videos, but what if you were to say 'Right, by 2 o'clock I want to have completed...' then you've just motivated yourself to complete a job by an allotted time.



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Stating Goals

An objective of 1000 customers buying from our webshop



An objective of 1000 **unique** customers **a month** buying from our webshop **by Q3 2017**



<https://www.professionalacademy.com/blogs-and-advice/what-are-smart-objectives-and-how-do-i-apply-them>

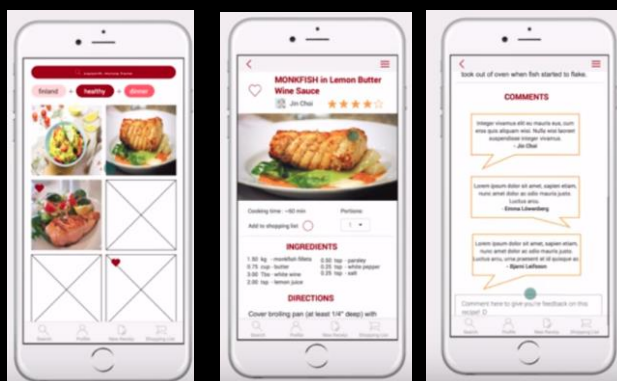
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Stating Measurable Usability Goals



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Designing a web for finding recipes



Helping foreign students to find recipes



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EFFECTIVENESS

*Accuracy and completeness
with which users achieve
specified goals*



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Mesurable Effectiveness Goal

We focus on:

Completeness with which users achieve specified goals

Three questions:

1. How many users do we think will complete?
(100%, 90%, 80%)
2. What user group are we talking about?
(from the list of user groups)
3. What goals are we talking about?
(from the list of use cases)

An example:

More than 80% of foreign students will be able to find the recipe they want during user testing



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The Format – Effectiveness goal

More than < # > % of <user group> are able to **complete** < use case>

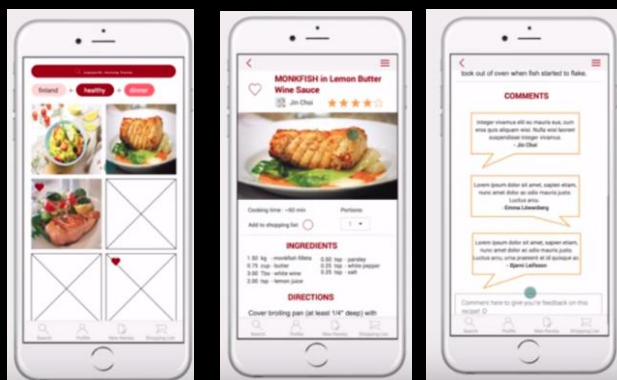
Examples:

- More than 90% of English speaking students are able to **complete** finding a recipe
- More than 75% of German speaking students are able to **complete** find the cheapest ingredient



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More than 90% of English speaking students are able to **complete** finding a recipe



- Task for users: Find the recipe for MonkFish in the app
- Ask at least 5 users to solve it
- Register how many users complete



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If these were the results

Users	Find a recipe
English speaking user 1	Completed
English speaking user 2	Completed
English speaking user 3	Completed
English speaking user 4	Not completed
English speaking user 5	Completed

Is this goal fulfilled?

- More than 90% of English speaking students **are able to** find a recipe



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Efficiency
Straight Ahead

*Resources used in relation to the
results achieved*



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Mesurable Efficiency Goal

Resources used in relation to the results achieved

Five questions:

1. Who are the users?
 - All user groups or a particular user group
2. What is the specified goal of the user?
 - From the list of use cases
3. What type of resources are we measuring?
 - Particular time, mouse clicks, number of problems, ...
4. What is the numerical limit?
 - Less than, less than or equal, equal, more than or equal, more than
5. Do we define the limit on average or precisely?
 - English speaking students **are able to** find a recipe **using** less than 2 min on average



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The Format – Efficiency goal

<user group> **are able to** < use case> **in** <limit>
<resource> <on average/precisely>

More examples:

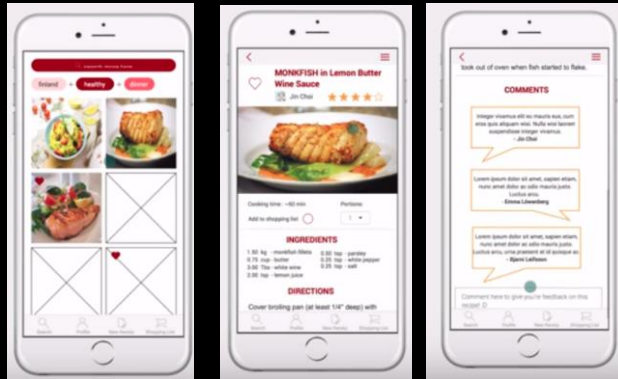
- English speaking students **are able to** find a recipe they want **in** less or precisely 3 minutes on average
- German speaking students **are able to** find the cheapest ingredience **in** less than 3 mouse clicks precisely

For the Efficiency goals we only look at the users that completed the task



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English speaking students **are able to** find a recipe they want **using** less or precisely 3 minutes on average



- Task for user: Find the recipe for MonkFish in the app
- Ask at least 5 users to solve it
- Measure the time



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If these were the results

Users	Find a recipe	Time
English speaking user 1	Completed	03:00
English speaking user 2	Completed	02:30
English speaking user 3	Completed	03:30
English speaking user 4	Not completed	05:00
English speaking user 5	Completed	03:00

Is this goal fulfilled?

- English speaking students **are able to** find a recipe they want **using** less or precisely 3 minutes on average



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Another Efficiency Goal

- A user should be able to find a GSM number in 3 clicks or less
- Task for the user: Find the GSM number for Marta Kristín Lárusdóttir
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Extent to which the user's physical, cognitive and emotional responses that result from the use of a system, product or service meet the user's needs and expectations

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Satisfaction goals

Questions:

1. Who are the users?
 - All user groups or a particular user group
2. What responses do we want to measure?
 - a rating of the overall satisfaction, a rating of if they want to use the system again,?
3. What is the limit?
 - Average, all above the target,
 - What is the numerical value we are targeting?
4. Is it on a particular scale?
 - 1 – 5 scale, 1 – 10 scale,

Example:

1. English speaking students **rate** their overall satisfaction of the system above 4 on average on a 1- 5 scale



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The Format – Satisfaction goal

<user group> **rate** < the satisfaction factor> <limit>
 <on average/precisely> **on a scale** < # - #>

Examples:

- English speaking students **rate** their overall satisfaction above 4 on average **on a scale** of 1 - 5
- German speaking students **rate** their overall satisfaction above 8 precisely **on a scale** of 1 - 10



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After User Testing

- We ask:
 - Rate your overall satisfaction on a scale from 1 – 5:
- If these were the results:

Users	Rating
English speaking user 1	3
English speaking user 2	4
English speaking user 3	4
English speaking user 4	5
English speaking user 5	3

- Is this goal fulfilled?
 - English speaking students **rate** their overall satisfaction above 4 on average **on a scale** of 1 - 5



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Keeping Track of Usability Goals



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Summary of Goals

- **Effectiveness**
 - 90% English speaking students **are able to** find a recipe
 - 75% of German speaking students **are able to** find the cheapest ingredience
- **Efficiency**
 - English speaking students **are able to** find a recipe they want **using** less or precisely 3 minutes on average
 - German speaking students **are able to** find the cheapest ingredience **using** less than 3 mouse clicks
- **Satisfaction**
 - English speaking students **rate** their overall satisfaction above 4 **on a scale** of 1 - 5
 - German speaking students **rate** their overall satisfaction above 8 precisely **on a scale** of 1 – 10



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Good to Keep Track of the Status of the Goals

Usability/UX Goal	Factor	Value	no	Fulfilled
More than 90% English speaking students are able to find a recipe	Effectiveness	80%		No
More than 75% of German speaking students are able to find the cheapest ingredience	Effectiveness	85%		Yes
English speaking students are able to find a recipe they want using less or precisely 3 minutes on average	Efficiency	03:00		Yes
German speaking students are able to find the cheapest ingredience using less than 30 seconds precisely	Efficiency	3,5		No
English speaking students rate their overall satisfaction above 4 on average on a scale of 1 - 5	Satisfaction	3,8		No
German speaking students rate their overall satisfaction above 8 precisely on a scale of 1 – 10	Satisfaction	7,5		No



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The process

1. Set measureable goals for usability
2. Prepare usability testing to test if we have reached the goal or not
 - The usability test has to be designed according to the goals
3. Gather the data to be able to check if we fullfill the goals
4. Calculate the results
5. Check, if we reached the goal or not
6. Decide what to do, redesign or deliver?



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All Users or not

We can use our analysis from requirements phase

Helstu verkefni eftir notendahópum á ytri vefnum

	Námsmenn vegna lána	Greiðendur námslána	Stofnunarstýrðingar	Umboðsmenn	Ábyrgðarmenn	Aðrir notendur
Fá svör við: hvernig á að sækja um lán	x					
Fá svör við: hvernig kjörin eru	x					
Fá svör við: hvenær kemur lán til útborgunar	x					
Fá svör við: hvaða nám er lánshæft	x					
Fá svör við: ábyrgðir á lánnum	x	x				
Ferlið frá a - ö (umsókn, útborgun, afborganir, ...)	x					
Upphæðir og gjalddagar afborgana		x				
Hve lengi standa endurgreiðslur yfir		x				
Möguleikar að borga upp lán		x				
Úrræði vegna greiðslufélleika		x				
Hvað gerist ef afborgun er ekki greidd		x				
Hvernig á að sækja um styrk			x			
Hvenær kemur styrkur til útborgunar			x			
Hvaða nám er styrkhæft			x			
Hvaða skilyrði eru fyrir styrk			x			
Upplýsingar um hlutverk umboðsmanna				x		
Hvað þurfa ábyrgðarmenn að gera				x		
Fá upplýsingar um réttindi og skyldur					x	
Almennar upplýsingar um starfsemi o.fl.						x



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The whole system or particular task?

- Depends on the Usability factor
- Effectiveness
 - State goals for a particular use case
- Efficiency
 - Always particular use case
- Satisfaction
 - The whole system



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The Usability Goals are Requirements

- Should be stated in the Requirement list

Number	Name	User group	Priority	Additional Info
1	Send in an order for each week for the ingredients of meals	Vegan, paleo, keto, classic	A	Use case description #5
2	Check what was ordered for a particular week both past in time and in the future	Vegan, paleo, keto, classic	B	
3	Rate a particular recipe of how tasty it was	Vegan, paleo, keto, classic	B	
4	Check how others rated a particular recipe	Vegan, paleo, keto, classic	B	
5	Make a new ingredient/recipe/group of recipes that the customers are able to buy	Employee	A	Use case description #3
6	90% of classic users can send in an order for each week for the ingredients of meals	Vegan, paleo, keto, classic		Effectiveness goal - use case #5
7	Classic users can send in an order for each week for the ingredients of meals in less than 1 minute on average	Vegan, paleo, keto, classic		Efficiency goal - use case #5
8	All users rate their overall satisfaction higher than 4 on average on a scale from 1 - 5	Vegan, paleo, keto, classic		Satisfaction goal



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Summary

- Stating measurable goals
- Stating measurable usability goals
 - Effectiveness
 - Efficiency
 - Satisfaction
- Keeping track of usability goals

