

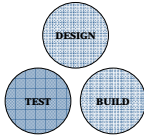
Introduction to Evaluation Methods

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Overview

- Main goals of Evaluation
- Types of Evaluation Methods



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Types of Evaluation Methods

- Evaluation is defined as ... *"To examine and judge carefully"*
- In order to examine and judge, we need criteria against which to base our assessment.
 - **User-Based Criteria**
 - Think Aloud Protocol
 - **Heuristic-Based Criteria**
 - Heuristic Evaluation
 - Cognitive Walkthrough
 - **"Hard Data"-Based Criteria**
 - Model Human Processor
 - GOMS
 - Experiments
 - **Market-Defined Criteria**
 - Competitive Analysis

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Types of Evaluation Methods

User-Based Criteria
Verify our personas & scenarios with real users by having them "use" our prototypes

- Need to have a prototype, in some form (can be paper)
- Need to understand the user and their goals in order to create tasks
- Similar to Contextual Inquiry, but instead of gathering requirements, we are gathering feedback in the form of **critical incidents**.

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Types of Evaluation Methods

Heuristic-Based Criteria

What is a heuristic?

- Compare our prototypes to existing rules, or guidelines
- How do we know which guidelines to pick?
- No users necessary.

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Types of Evaluation Methods

"Hard Data"-Based Criteria

- Scientific, mathematical
- Provide data to prove the usability of the interface

When would this be most useful?

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Types of Evaluation Methods

Market-Defined Criteria

- Compare our prototypes and assumptions to other similar products in the market space
- Determine brand recognition
- Understand the dynamics of the marketplace

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Types of Evaluation Methods : Cheat Sheet

	Think Aloud Protocol	Heuristic Evaluation	Cognitive Walkthrough	Model Human Processor	GOMS	Experiment	Competitive Analysis
User	X					X	
Heuristic		X	X				
Hard-Data				X	X	X	
Market Defined							X
Speed	Fast	Medium	Medium/Slow	Slow	Slow	Slow	Fast
Cost	Cheap	Cheap	Cheap	Cheap	Cheap	Expensive	Cheap
# of users required	2-8	0	0	0	0	20+	0
# of evaluators required	1-2	2-8	2-8	1-2	1-2	1-4	1-2
Developed by	Newell & Simon from CMU	Jakob Nielsen (useit.com)	Based on Lewis & Polson's CE+ info processing model	Card, Moran & Newell	Card, Moran & Newell	Social Psychology as a field	Business & Marketing as an org structure

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Types of Evaluation Methods : Key Takeaways

- **Any** evaluation is better than **no** evaluation
- We evaluate to find problems with our interfaces, assumptions and hypotheses
 - **You will find problems**
 - **You are not a bad designer when you find problems**
- "Fail Early, Fail Often"
- You succeed as both a designer and an evaluator when you find problems – this is an iterative cycle

Summary

- Main goals of Evaluation
- Types of Evaluation Methods

Coming soon ... Think Aloud Protocol

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