
Usability Techniques: How to Choose?

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February 19, 2020

Discussion Topics

- **Establishing the Context**
- **Deciding the Types of Data Needed**
 - Attitudinal vs. Behavioral
 - Qualitative vs. Quantitative Studies
- **Choosing the Techniques**
- **Learning from Practicing and the Community**
 - Sample Best Practices

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Key Take-Away

**It depends
(on the context)!**

Establishing the Context

Establishing the Context

- **What you are trying to learn and why?**
- **Example Questions:**
 - Who are my target users?
 - What are my target users' behavior, goals, motivations, needs?
 - What are my target users' current workflows?
 - What tools are my target users currently using?
 - What are the current user experiences?

Establishing the Context - continued

Problem Statement

Spotfire Metrics was designed to _____.

We have observed that it isn't meeting the goals of _____, which is causing _____.

How might we improve it so that our customers are more successful based on _____.

Discussion Questions

- **What usability questions do you have?**

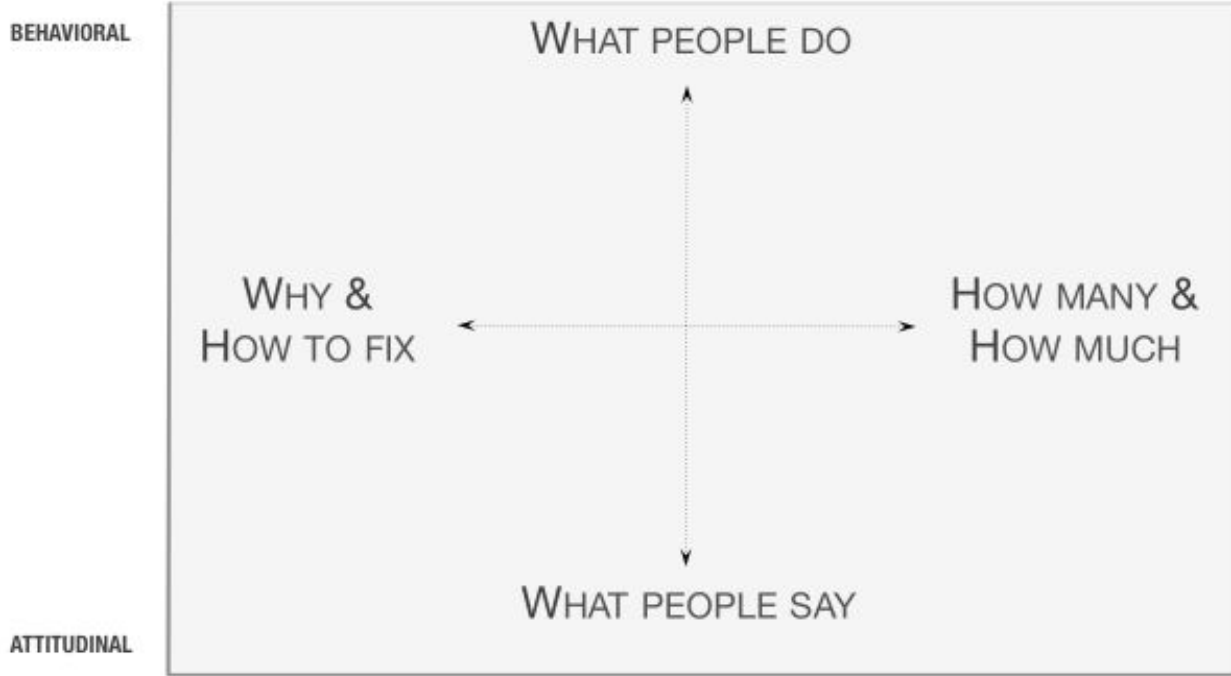
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Deciding the Types of Data Needed

Attitudinal vs. Behavioral vs. Qualitative vs. Quantitative

QUESTIONS ANSWERED BY RESEARCH METHODS ACROSS THE LANDSCAPE

People's Actual
Actions



People's Stated
Beliefs

QUALITATIVE (DIRECT)
Verbal/Textual

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QUANTITATIVE (INDIRECT)
Numerical/Mathematical

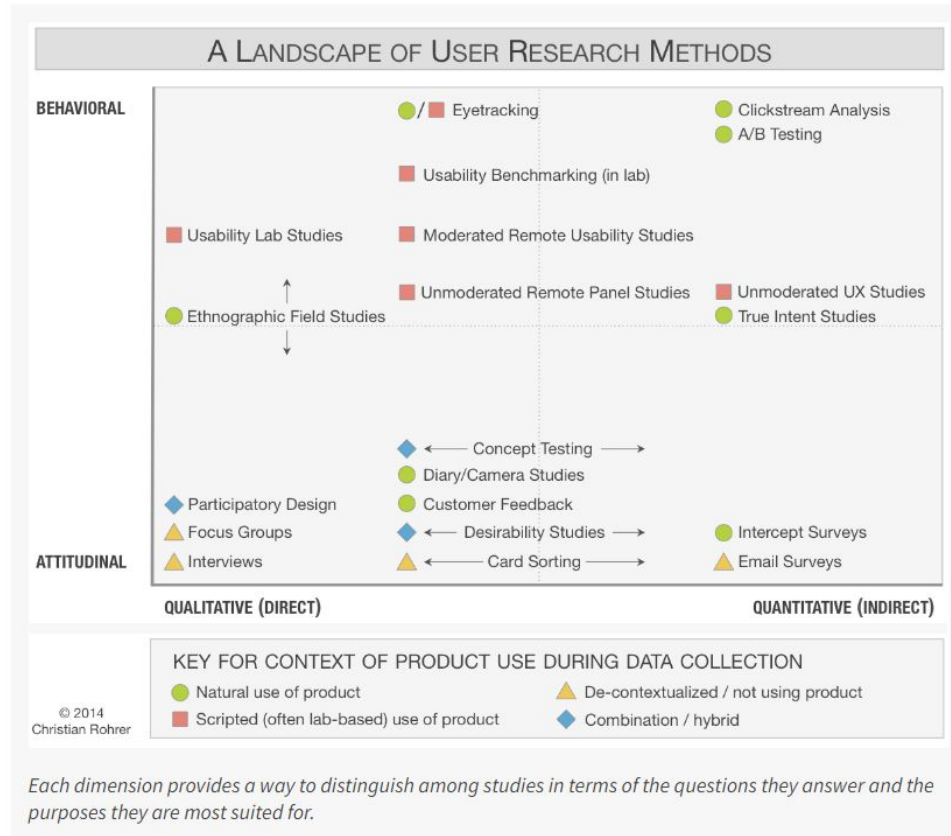
Discussion Questions

- **What type of usability data are you interested in learning more about?**

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Choosing the Techniques

Mapping from Christian Rohrer



Use of Service/Tool-Under-Test with the Techniques (by Christian Rohrer)

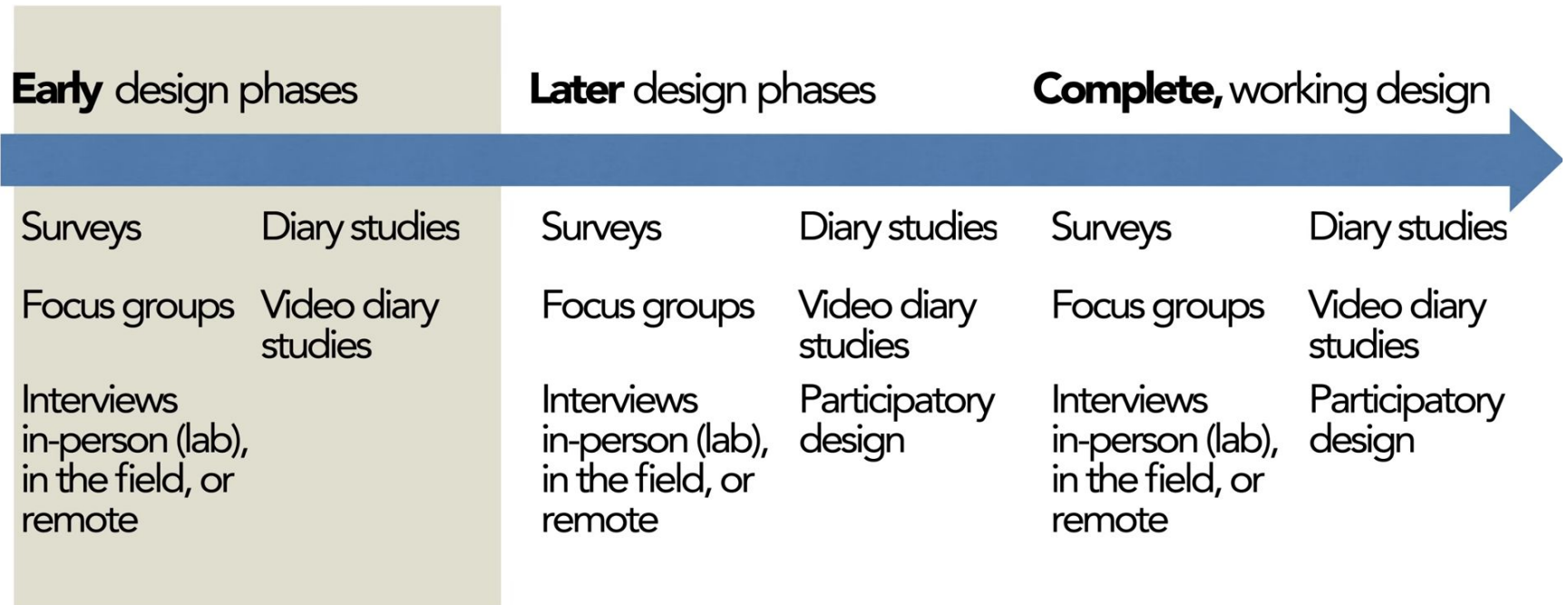
- **Natural or Near-Natural:**
 - Understand behavior or attitudes as close to reality as possible
- **Scripted:**
 - Focus the insights on specific usage aspects
- **Not Used:**
 - Examine issues that are broader than usage and usability
- **Hybrid:**
 - Combine the methods mentioned above

Phases of Product Development (by Christian Rohrer)

	Product Development Phase		
	Strategize	Execute	Assess
Goal:	Inspire, explore and choose new directions and opportunities	Inform and optimize designs in order to reduce risk and improve usability	Measure product performance against itself or its competition
Approach:	Qualitative and Quantitative	Mainly Qualitative (formative)	Mainly Quantitative (summative)
Typical methods:	Field studies, diary studies, surveys, data mining, or analytics	Card sorting, field studies, participatory design, paper prototype, and usability studies, desirability studies, customer emails	Usability benchmarking, online assessments, surveys, A/B testing

Attitudinal (by Kara Pernice)

Attitudinal: Ask and listen to user responses



Behavioral (by Kara Pernice)

Behavioral: Observe to learn

Discovery & architecture research

Early design phases

Complete, working design

Benchmark
Field studies

Card sorting
Tree testing

Prototype testing of low-
or high-fidelity

- Interaction
- Visual design
- Content

Intercept

Intercept
Eyetracking
Analytics

Field Studies
Benchmark
Support
feedback

Quantitative & Qualitative (by Kara Pernice)

Quantitative & qualitative methods and recommended participants

Many users per research round



Quantitative usability tests (>20 users)

Tree testing (50-100 users)

Eyetracking heatmaps (40 users)

Card sorting (~20 users)

Interviews (~10 users)

Focus groups (~8 users)

Higher-fidelity prototypes (~5-8 users)

Very early prototype usability tests (~2 users)

Few users per research round

Discussion Questions

- **What usability technique(s) are you interested in learning more about?**

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Learning from Practicing and the Community

Sample Best Practices

- Understand what the users want and need for their goals first before verifying whether the users can use the tool/service to achieve their goals.
- Observe, instead of ask, what users need or want.
- Use multiple techniques to cross reference findings.
- Keep a master list of outstanding open questions to keep track of possible research activities, but focusing on answering just one open question at a time.
- Include timing, participants, and resources (time, people, and cost) in your consideration.
- Iterate.
- There is never a bad time to do research.

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Thank You!