

User Research: Discovering Requirements

IF3151 Human Computer Interaction

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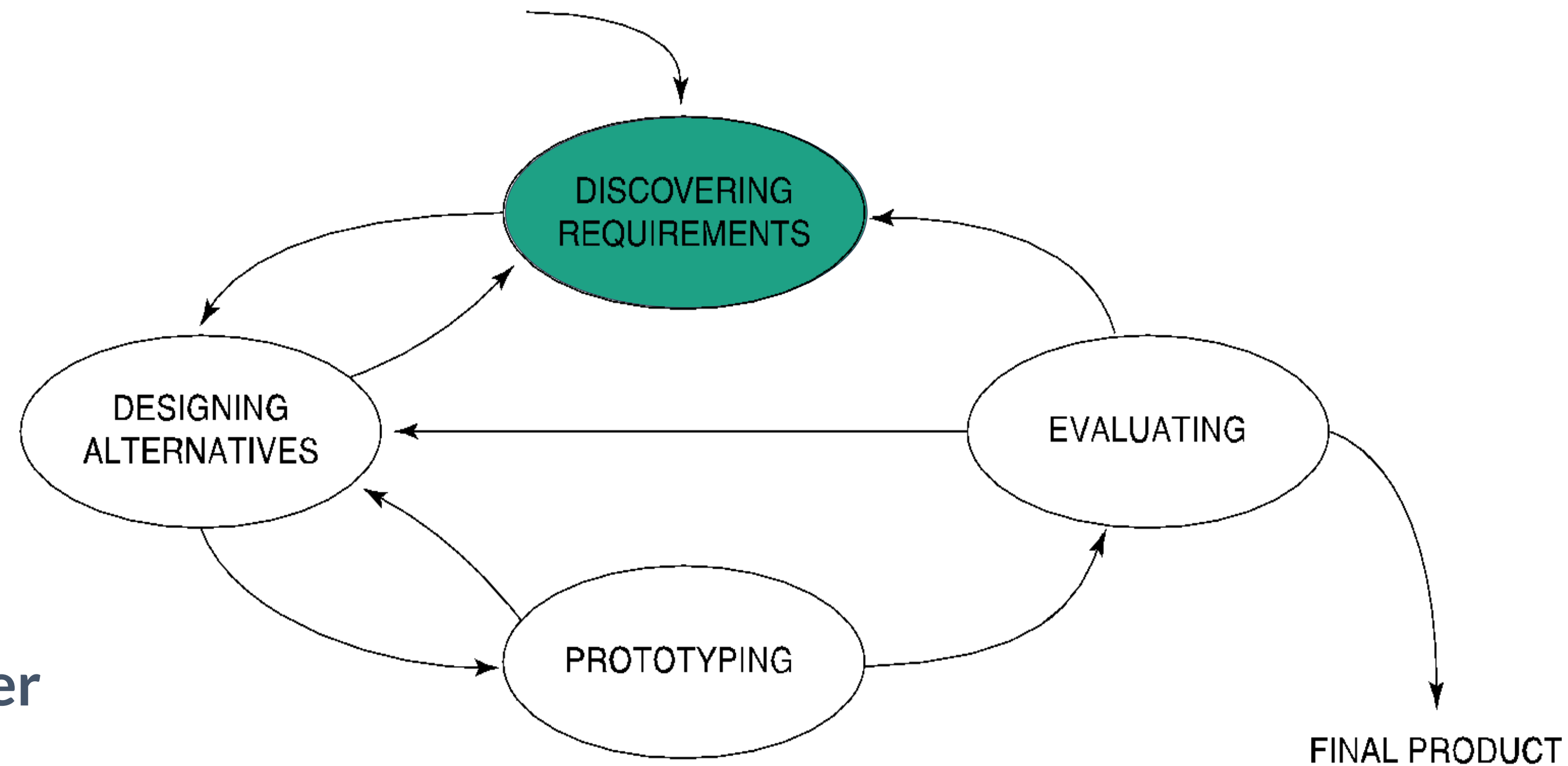
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Basic Activities of Interaction Design

- 0 Discovering requirements
- 1 Designing alternatives
- 2 Prototyping alternative designs
- 3 Evaluating product and its user experience throughout
- 4



01

Discovering
Requirements

02

Data
Gathering

03

Bringing
Requirements
to Life

01

Discovering Requirements

What, how, and why?

1

What is the purpose of the requirements activity

- Explore the problem space
- Knowing what will be developed

2

How to capture requirements

There are many mechanisms: observation, research, etc

3

Why it is needed

Requirements activity is the stage where miscommunication occurs

What are requirements

A statement about an intended product that specifies what it is expected to do or how it will perform

User Stories

an approach in software development that focuses on the user perspective.

Short statements that describe desired requirements or features from the user's point of view.

Help the development team better understand the goals and needs of end-users and keep the focus on the UX.

User Stories: Elements and Format

Elements:

- Who
- What
- Why

Format:

As a <role>, I want <behavior> so that <benefit>

User Stories Example (1)

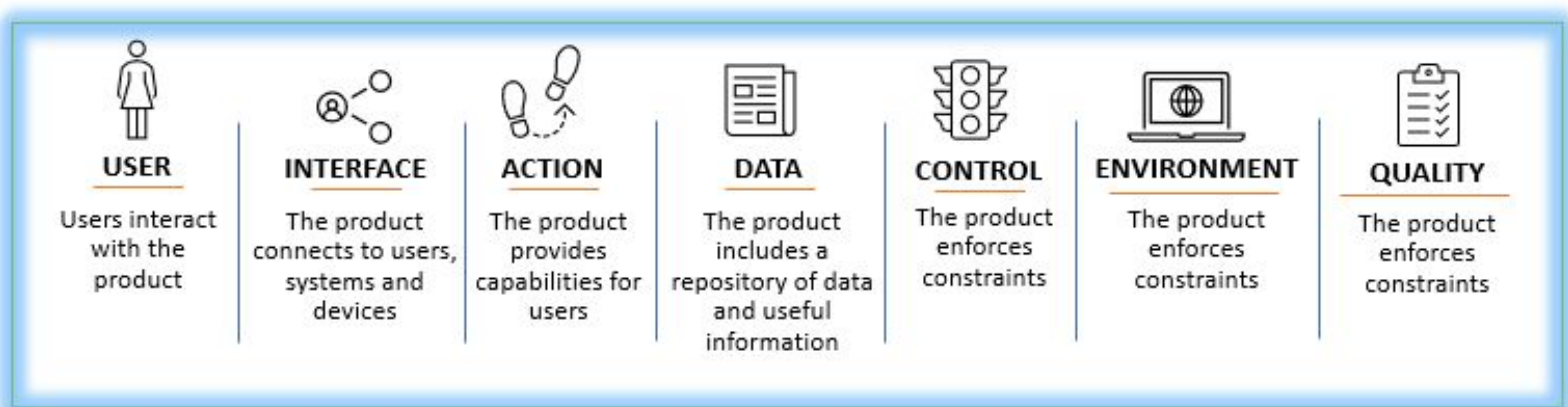
As a <traveler>,
I want
<to save my favorite airline for all my flights>
so that
<I will be able to collect air miles>

User Stories Example (2)

As a <travel agent>,
I want <my special discount rates to be displayed to me>
so that
<I can offer my clients competitive rates>

The Seven Product Dimension

(agile)



Source: Gottesdiener and Gorman (2012), Discover to Deliver: Agile Product Planning and Analysis

Different Kinds of Requirements (1)

Functional

- What the system should do

Data

- What kinds of data need to be stored?
- How will they be stored (for example, database)?

Different Kinds of Requirements (2)

Environment or context of use

- **Physical:** dusty? noisy? vibration? light? heat?
- **Social:** data sharing, collaboration, synchronous, privacy
- **Organizational:** user support, communications structure and infrastructure, availability of training
- **Technical:** on what technologies will it run or need to be compatible?

Different kinds of requirements (3)

User – who they are

- Characteristics: educational background, nationality, etc
- System use: novice, expert, casual, frequent
- User profile

Usability and User Experience Goals

Different products have different requirements and may be implemented in different ways

How to discover the user requirements?



User Research

What is research?

Asking more and better questions

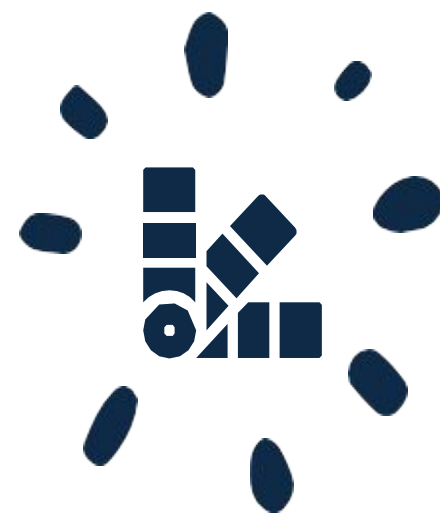
Thinking critically about the answers

User Research

Helps place people at the center of your design process and your products



INSPIRE
design



EVALUATE
solutions



MEASURE
impact

Dimensions

Attitudinal

what people say

Behavioral

what people do

VS.

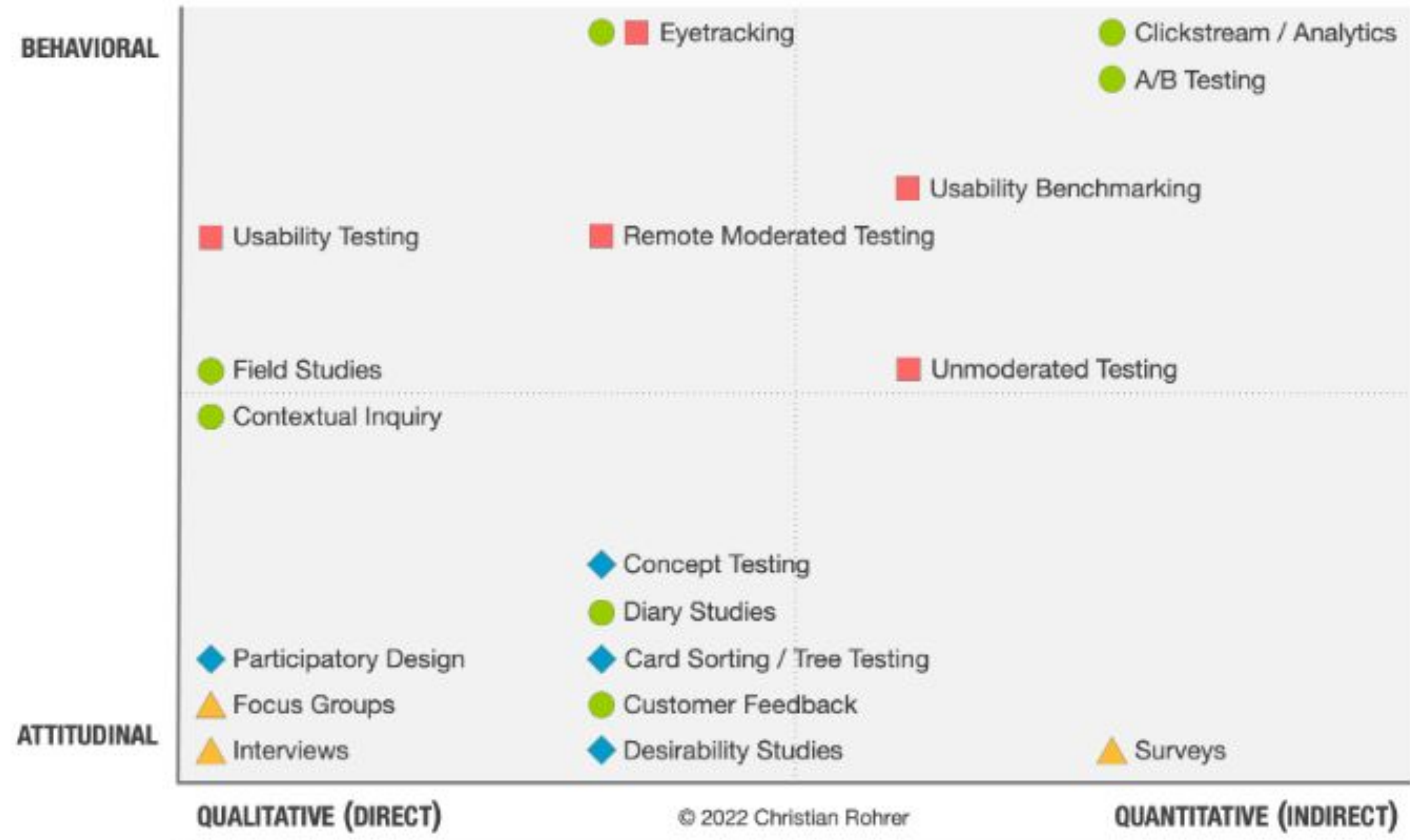
Qualitative

more effective at
revealing why

Quantitative

showing what is
happening and can
reveal a degree of how

A Landscape of User Research Methods



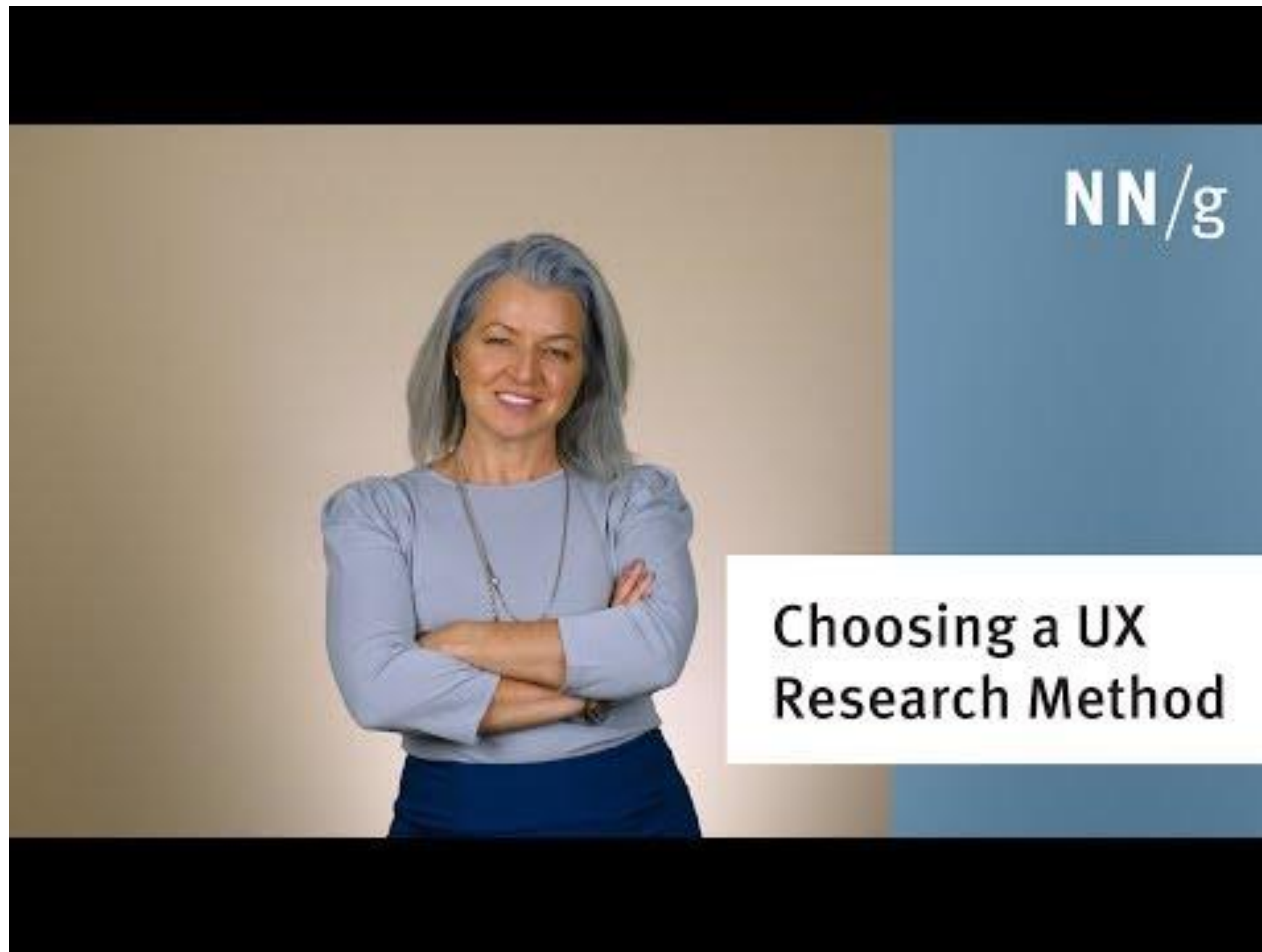
KEY FOR CONTEXT OF PRODUCT USE DURING DATA COLLECTION

<https://www.nngroup.com/articles/which-ux-research-methods/>

- Natural use of product
- Scripted use of product
- ▲ Decontextualized (not using product)
- ◆ Limited (use of a limited form of the product to study a specific aspect of the the user experience)

When to use which
user-experience research
methods

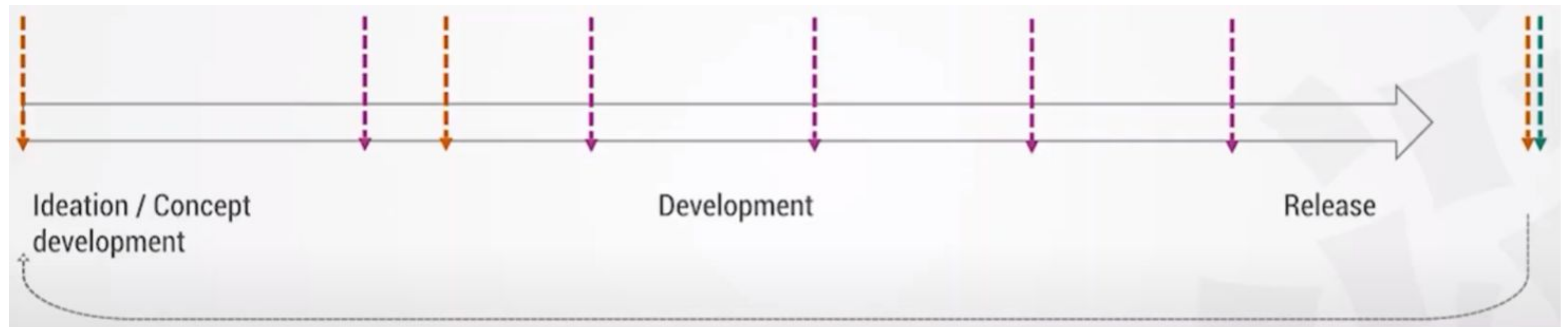
nngroup.com



<https://youtu.be/OtUWbsvCujM>

When to do user research

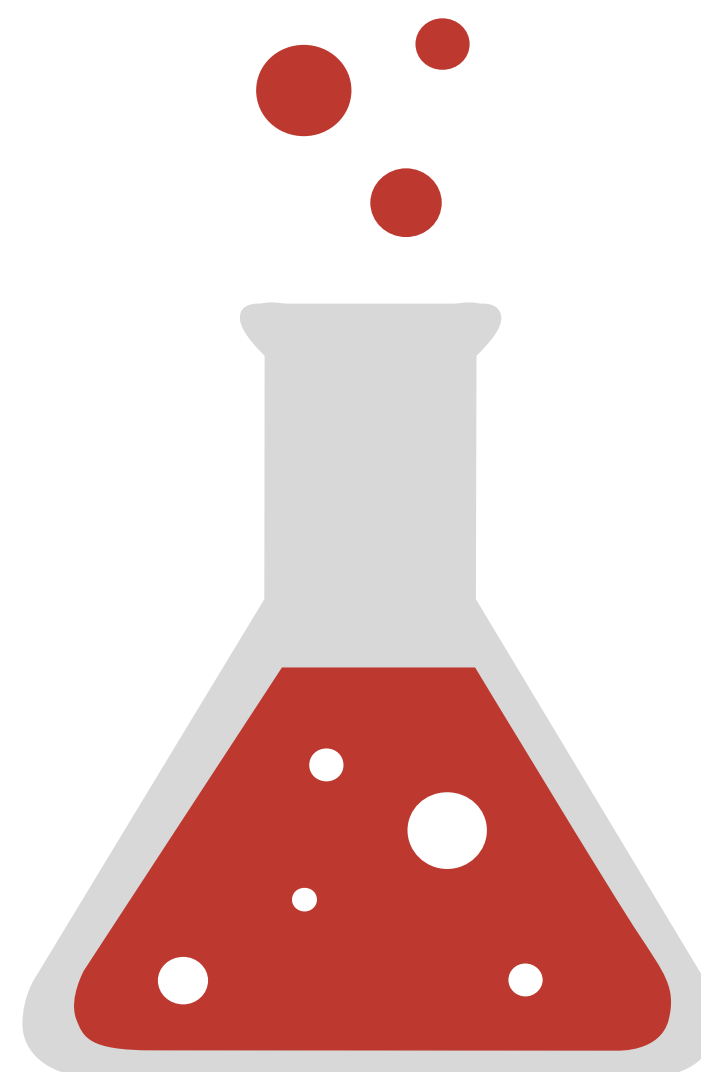
Depends on why you are doing user research



Research to ensure that your design are truly relevant

Research to ensure that your design is pleasant and easy to use

Research to understand return on investment of your user experience (UX) design



*Creativity is the key to success
in the great education*

Terima Kasih
