

Lecture User Experience Research

10th February, 2019



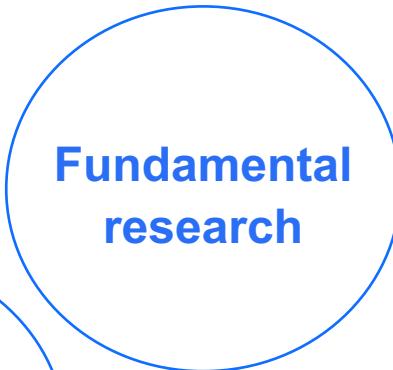
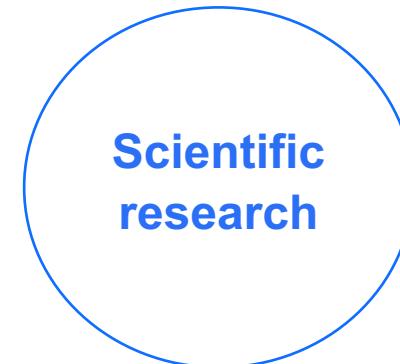
Plan

theory, topics,
questions,
recommendations and
etc.

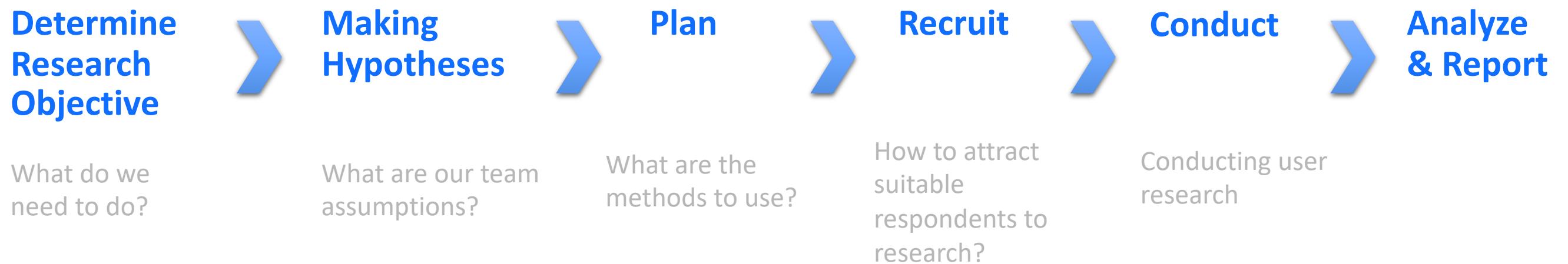
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|--|---|
| <p>Topic 1. Introduction</p> | <ul style="list-style-type: none">• What is research• General Research Process• User Experience Knowledge Area• When you need a UX research?• Value of UX research |
| <hr/> | <hr/> |
| <p>Topic 2. User Research Methods</p> | <ul style="list-style-type: none">• Methods of UX Research• Types of UX Research• Most-Used UX Research Methods• Methods of UX Research in each Product Development Phase |
| <hr/> | <hr/> |
| <p>Topic 3. Research Session Planning</p> | <ul style="list-style-type: none">• Hypotheses. How to build hypotheses?• Hypothesis validation• Choosing a research method for tasks• Recruiting respondents for User Research• Guides for research |
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| <p>Topic 4. Research Session Process</p> | <ul style="list-style-type: none">• Testing process• How to ask the right questions• How to build the research process• Who can attend the research and in what role?• What documents are needed for the research process |
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| <p>Topic 5. User Research Results</p> | <ul style="list-style-type: none">• Results. Analysis. Instruments• Templates of artifacts based on research results• Ranking of research results• Toolkit for processing test results• Adjustments based on testing and research results |

1. Introduction

Research is work undertaken to increase the stock of knowledge, including knowledge of humans, culture and society, and the use of this stock of knowledge to devise new applications.



General Research Process

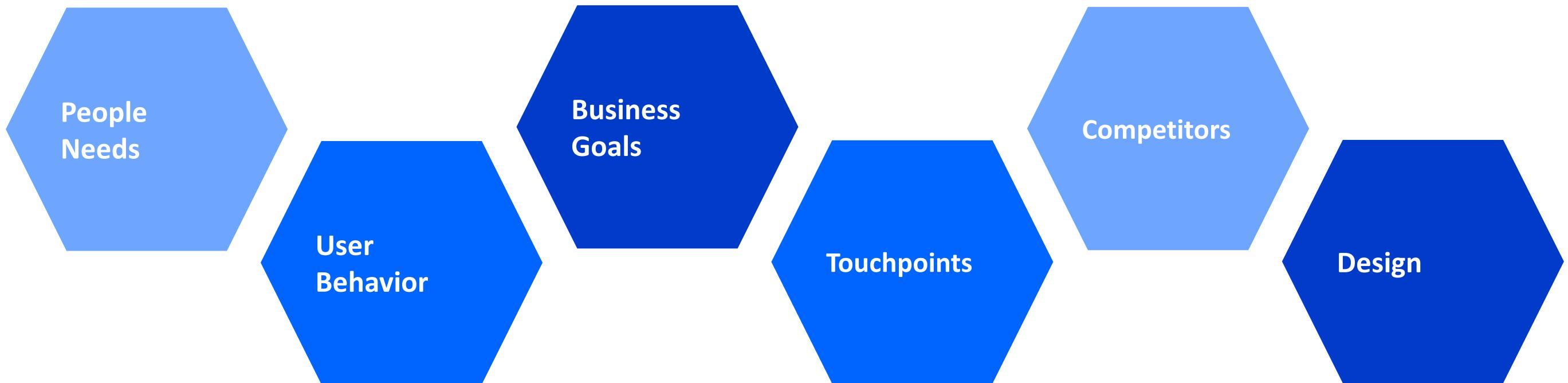


*Empirical research

User Experience Knowledge Area



User Research is the systematic study of the **behaviors**, **goals**, **needs**, and **motivations** of users so as to specify the design, construction, or improvement of tools to benefit how users work and live.



When you need a UX research?

Check ideas for new product development

Determine the target audience of the product

Determine how much the product falls into the target audience

Check if the new design works

Determine if there is a usability problem in the current product

Value of UX research

Benefits for the product

- Users data
- Product Use Options
- What user problem can be solved.

Benefits for the user

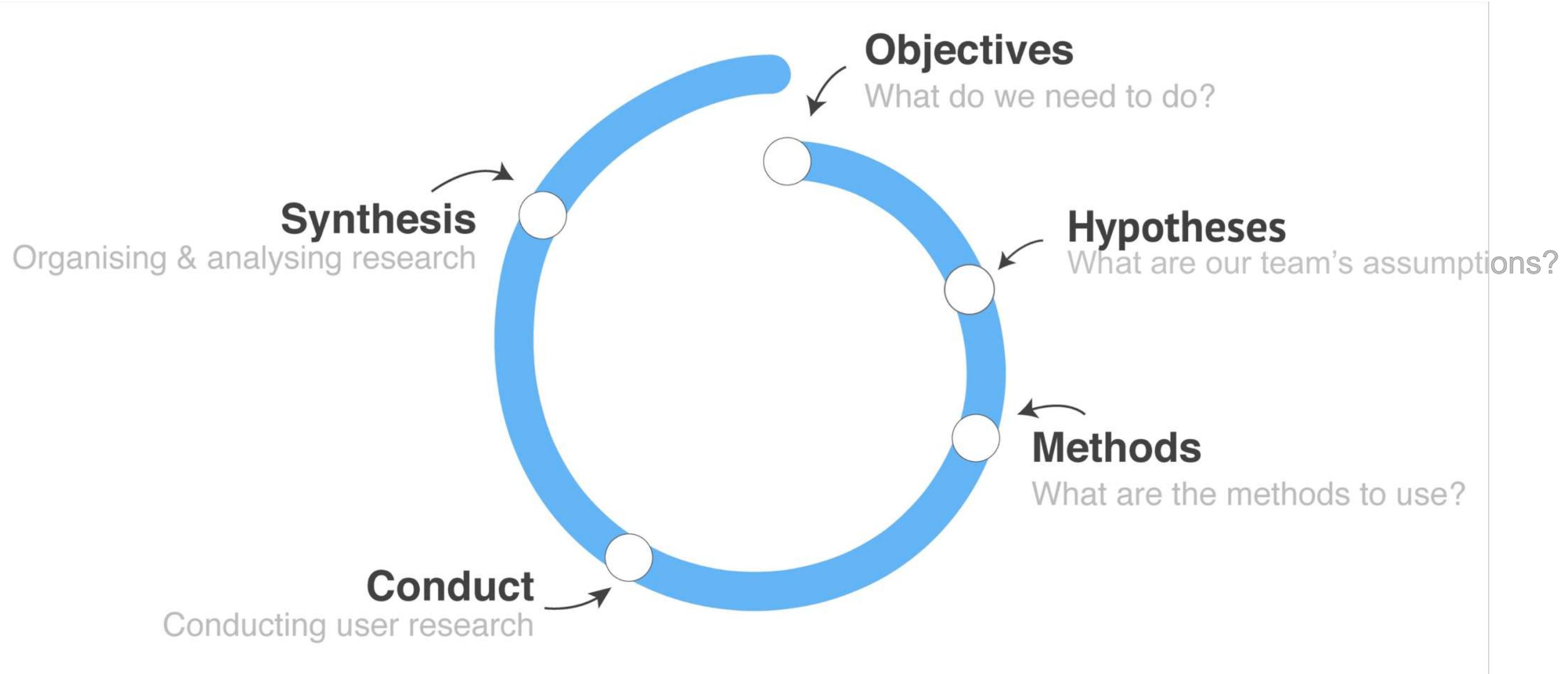
- Feedback with the manufacturer of the product

Benefits for business

- Understanding of the end user
- Reduced the cost of redesign
- Increased the level of user satisfaction

2. User Research Methods

UX Research Process



Types of UX Research

Quantitative & Qualitative

| | Quant Research | Qual Research |
|------------------------|--|---|
| Questions | What? | Why? |
| Goals | Generalizability Prediction Causal Explanations | Exploratory Understanding Participants' Perspectives |
| Research Role | Objective Observer | Empathic Participant |
| When it is used | When you have a working product (either at the beginning or end of a design cycle) | Anytime: during redesign, or when you have a final working product |
| Setting | Controlled Environment | Naturalistic Environment |
| Analysis | Statistical | Interpretive |
| Methodology | <ul style="list-style-type: none">Few participantsFlexible study conditions that can be adjusted according to the team's needsThink-aloud protocol | Many participants Well-defined, strictly controlled study conditions Usually no think-aloud |
| Outcome | Statistically meaningful results that are likely to be replicated in a different study | Findings based on the researcher's impressions, interpretations, and prior knowledge |

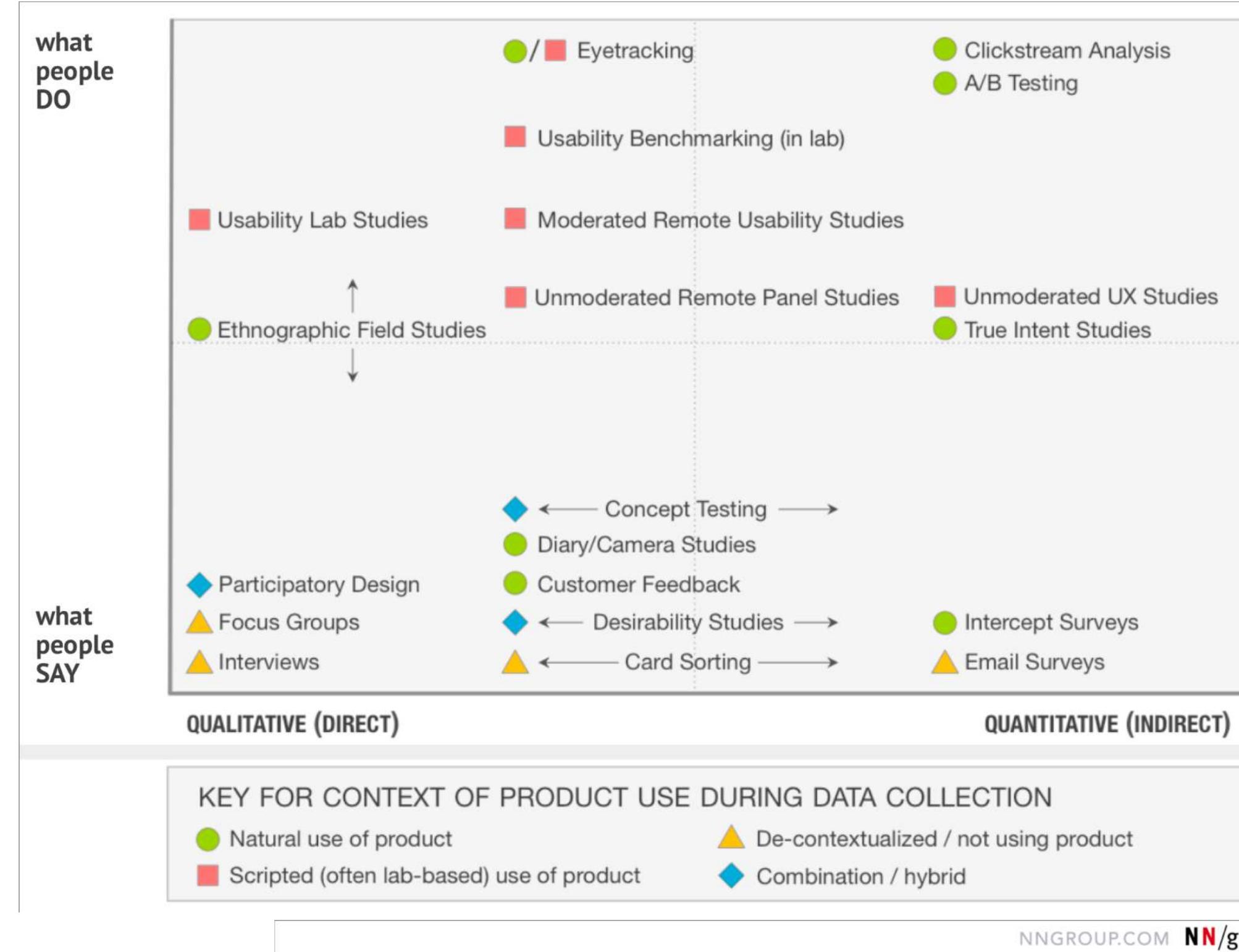


UX Research ≠ **Usability testing**

Methods of UX Research

Methods of UX Research

Overview



Methods of UX Research

Product Development Phase

ENVISION

- Subject matter expert interviews
- Heuristic Evaluation/ Expert Review
- KPI/Metric setting workshops
- Analytics review
- Call center analysis

DISCOVERY

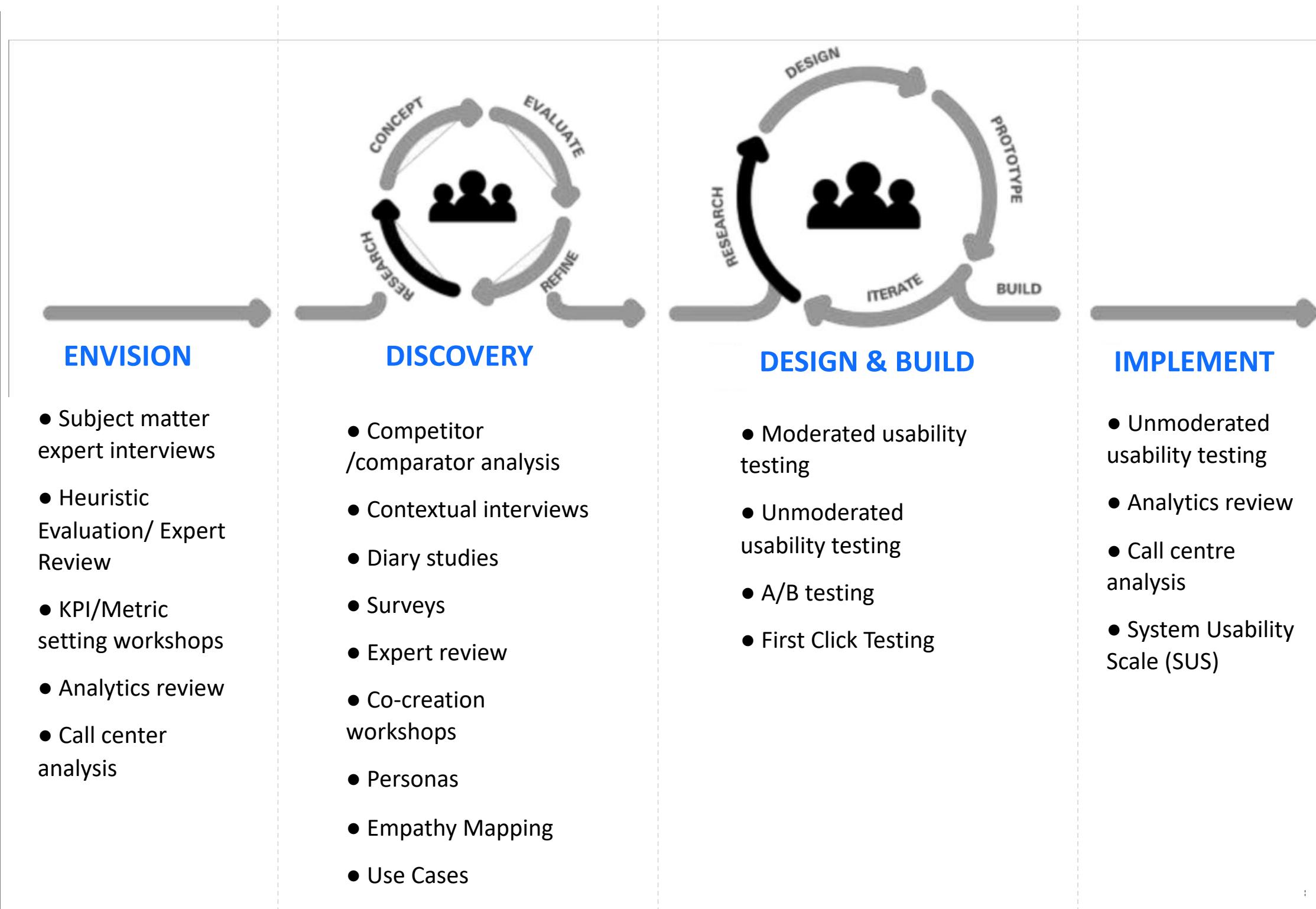
- Competitor /comparator analysis
- Contextual interviews
- Diary studies
- Surveys
- Expert review
- Co-creation workshops
- Personas
- Empathy Mapping
- Use Cases

DESIGN & BUILD

- Moderated usability testing
- Unmoderated usability testing
- A/B testing
- First Click Testing

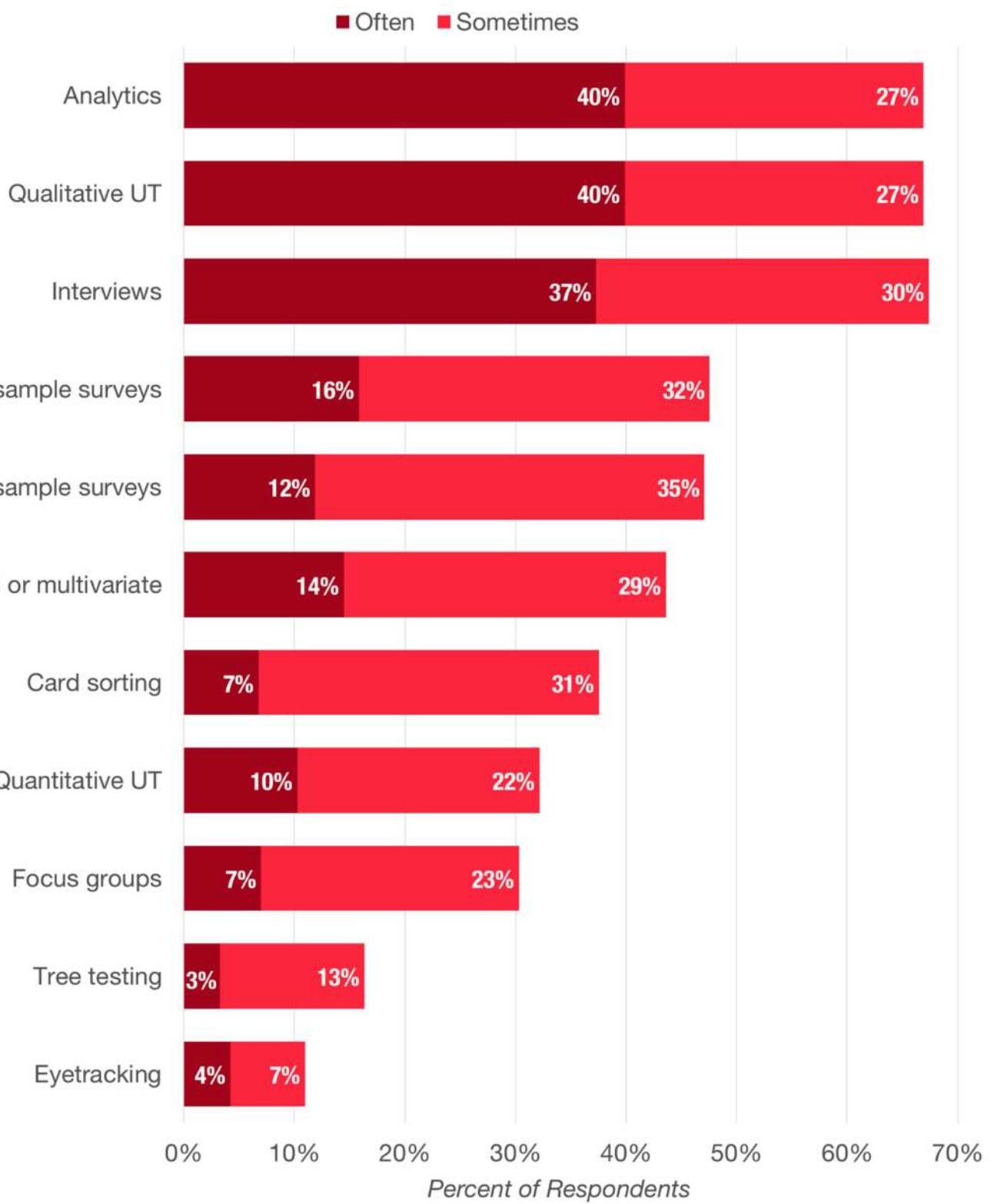
IMPLEMENT

- Unmoderated usability testing
- Analytics review
- Call centre analysis
- System Usability Scale (SUS)

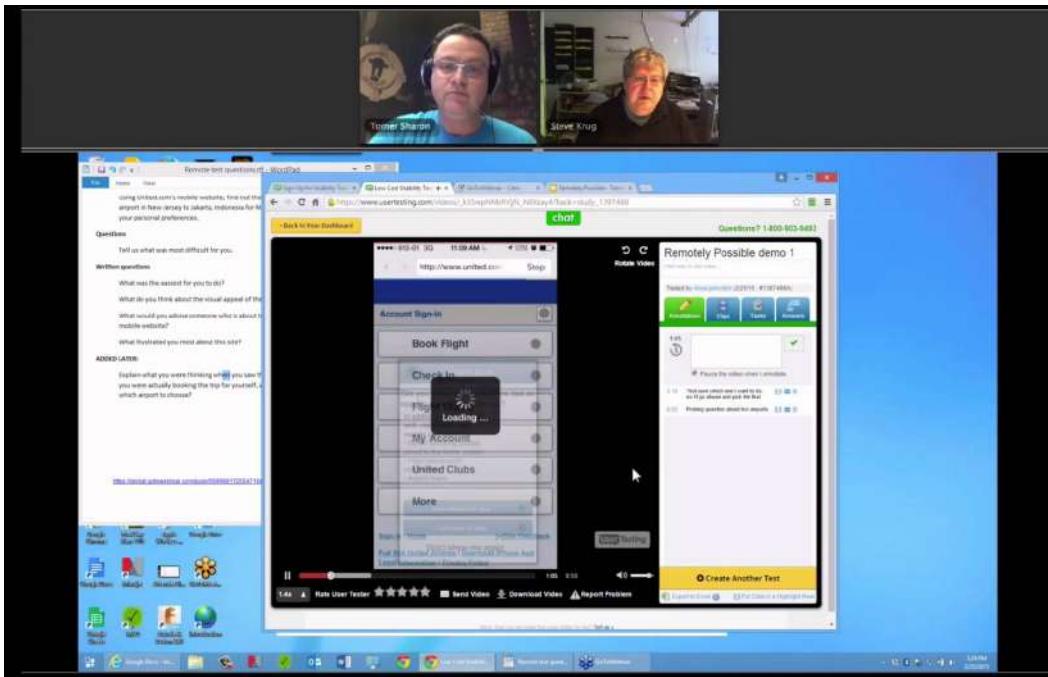


Methods of UX Research

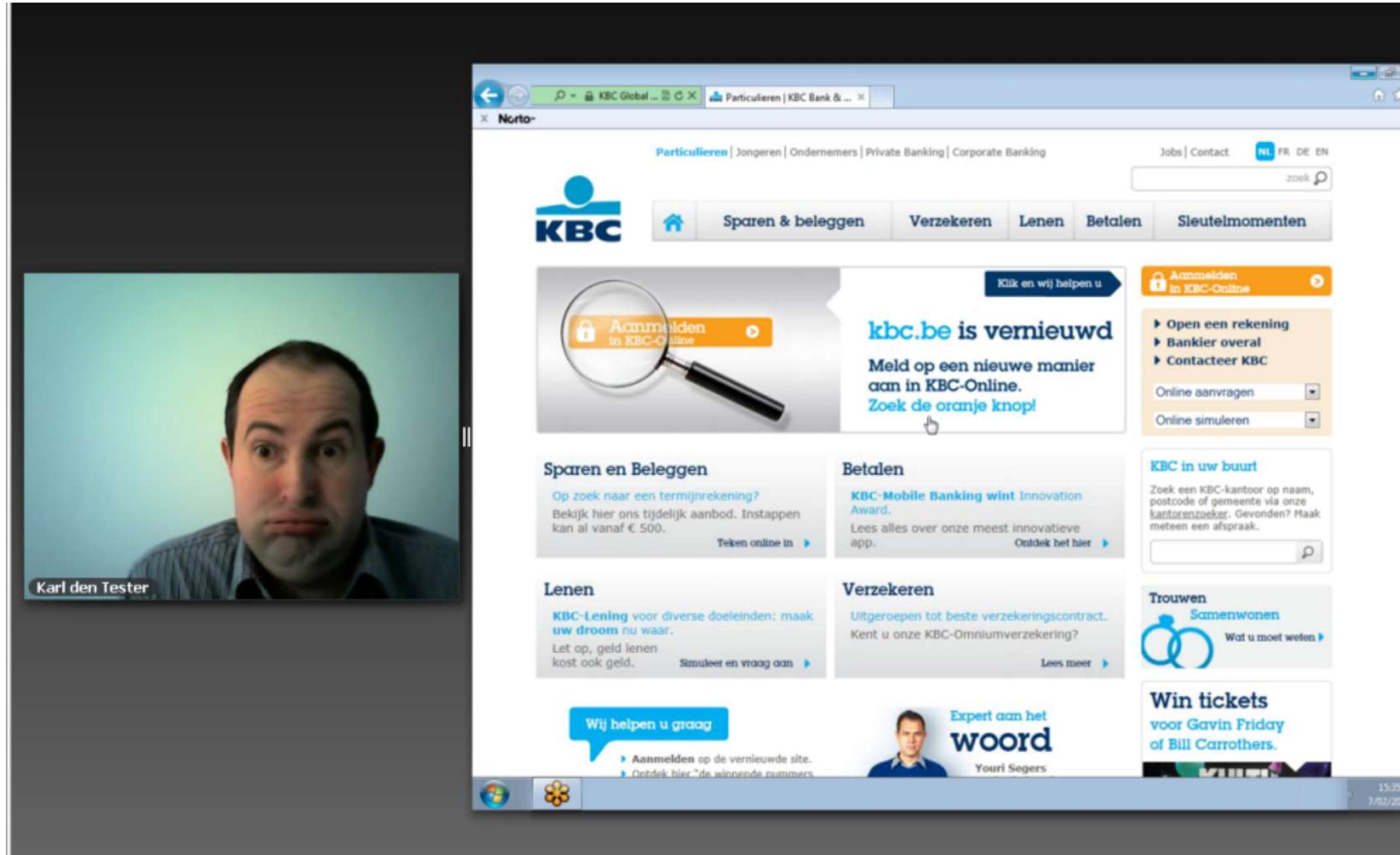
Most-Used UX Research Methods



Moderated usability testing

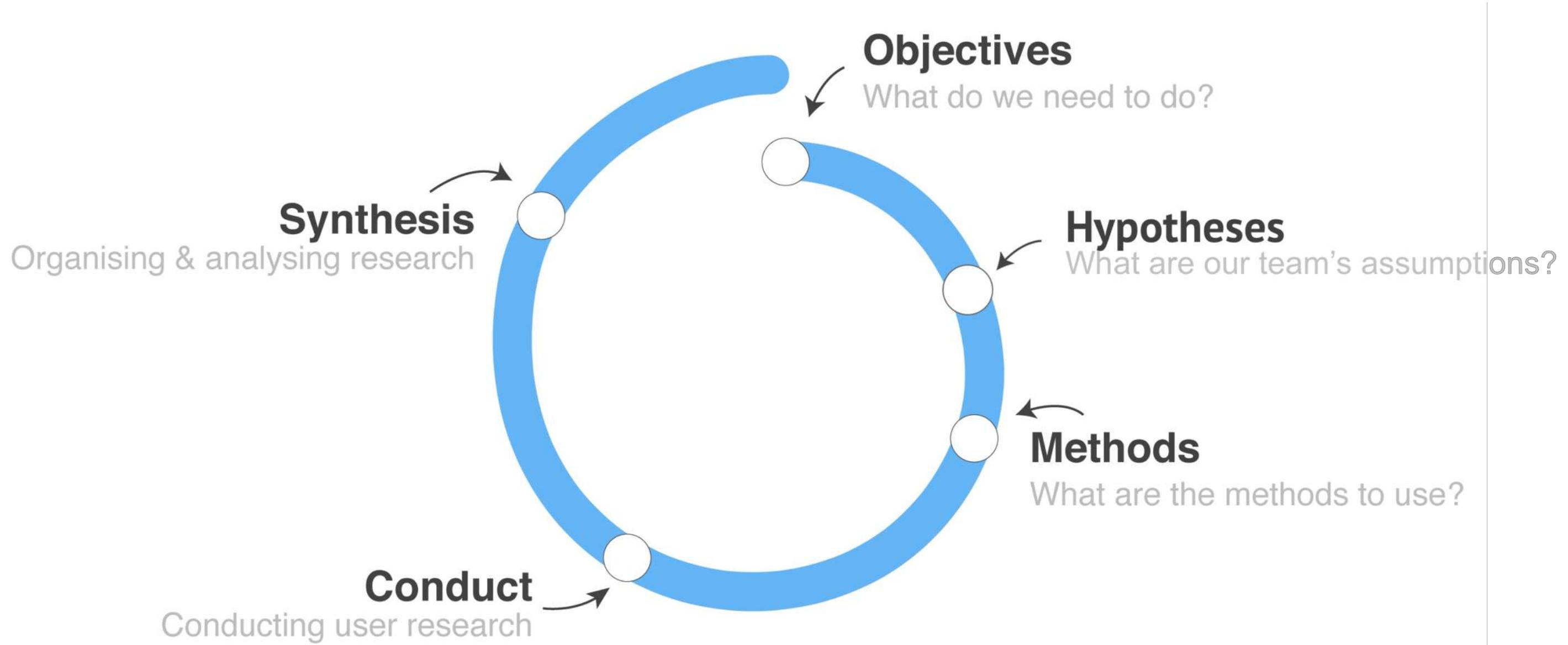


Unmoderated usability testing

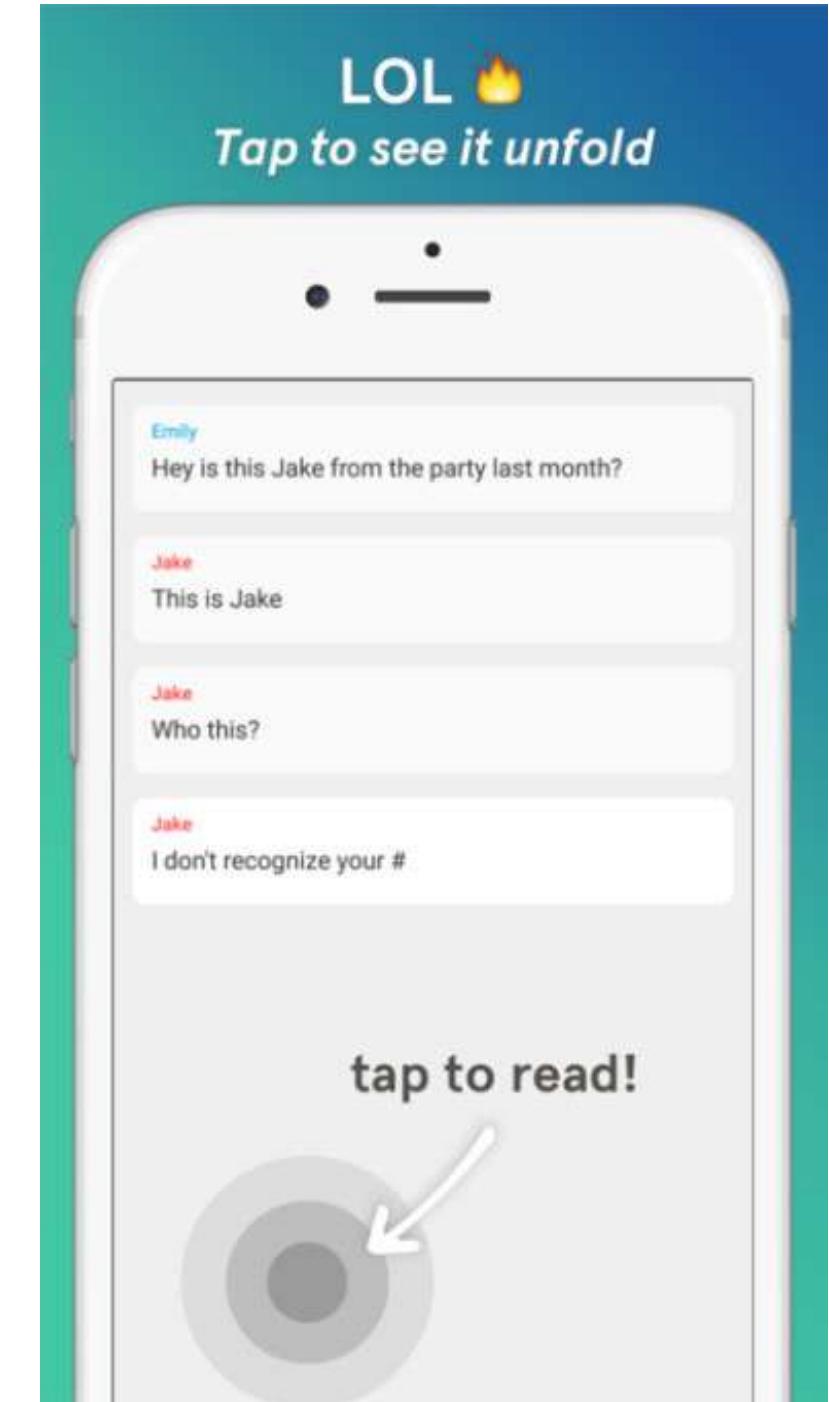
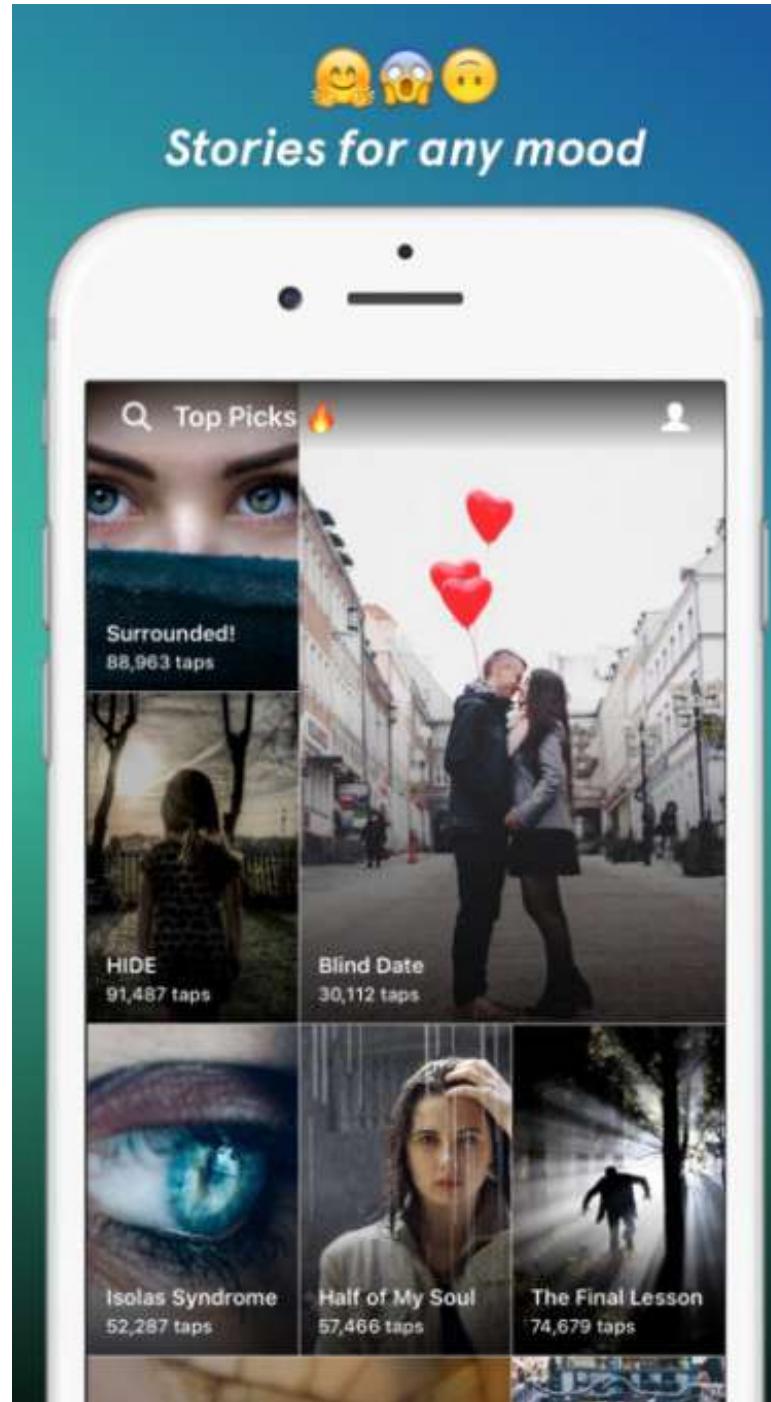


3. User Research Planning

UX Research Process



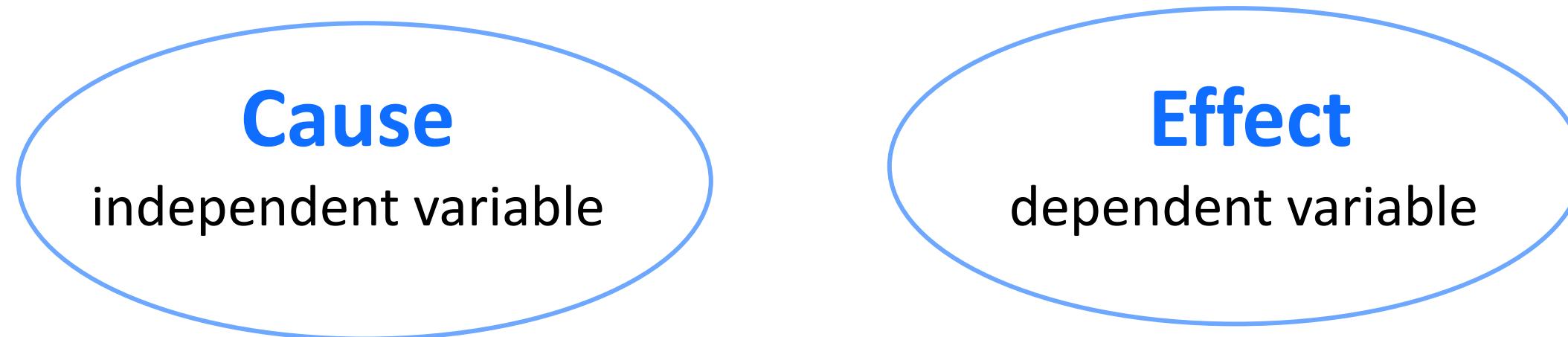
Books in chat



Hypotheses

“Business owners are very picky when choosing their suppliers” is a non-scientific statement (because it is impossible to quantify ‘very picky’ in any meaningful way + ‘business owner’ is too broad of a segment) but by changing the statement to ***“Small business owners assess at least 3 factors when selecting, evaluating, and monitoring suppliers”*** it becomes testable. We can now find out what these factors are and how these factors vary in different types of businesses.

Hypotheses: Cause & Effect



Poorly designed checkout page leads to an increase of abandoned carts

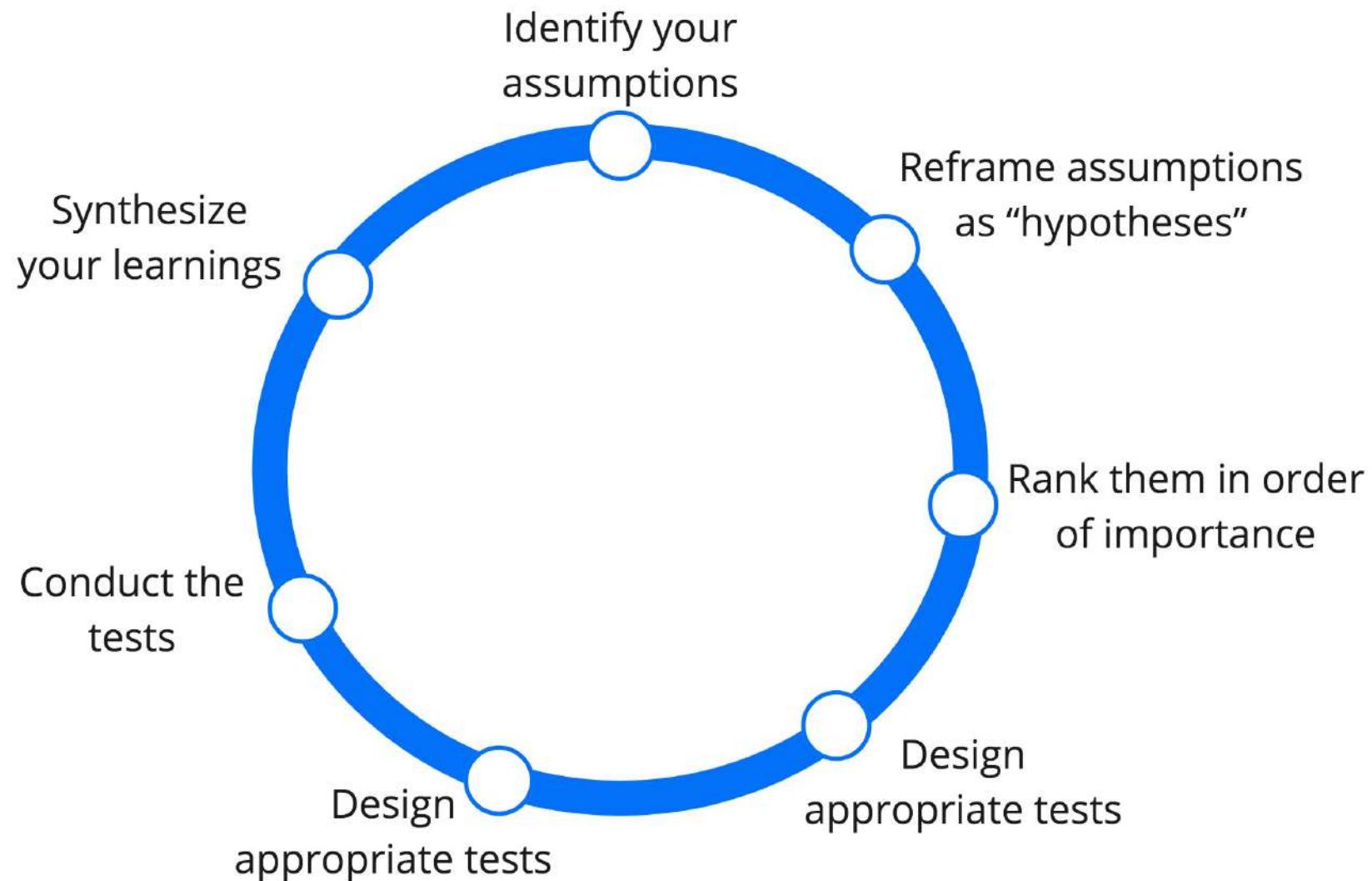
Cause: 'poor UX of a checkout page'

Effect: 'low customer conversion'.

Hypothesis validation

Main point

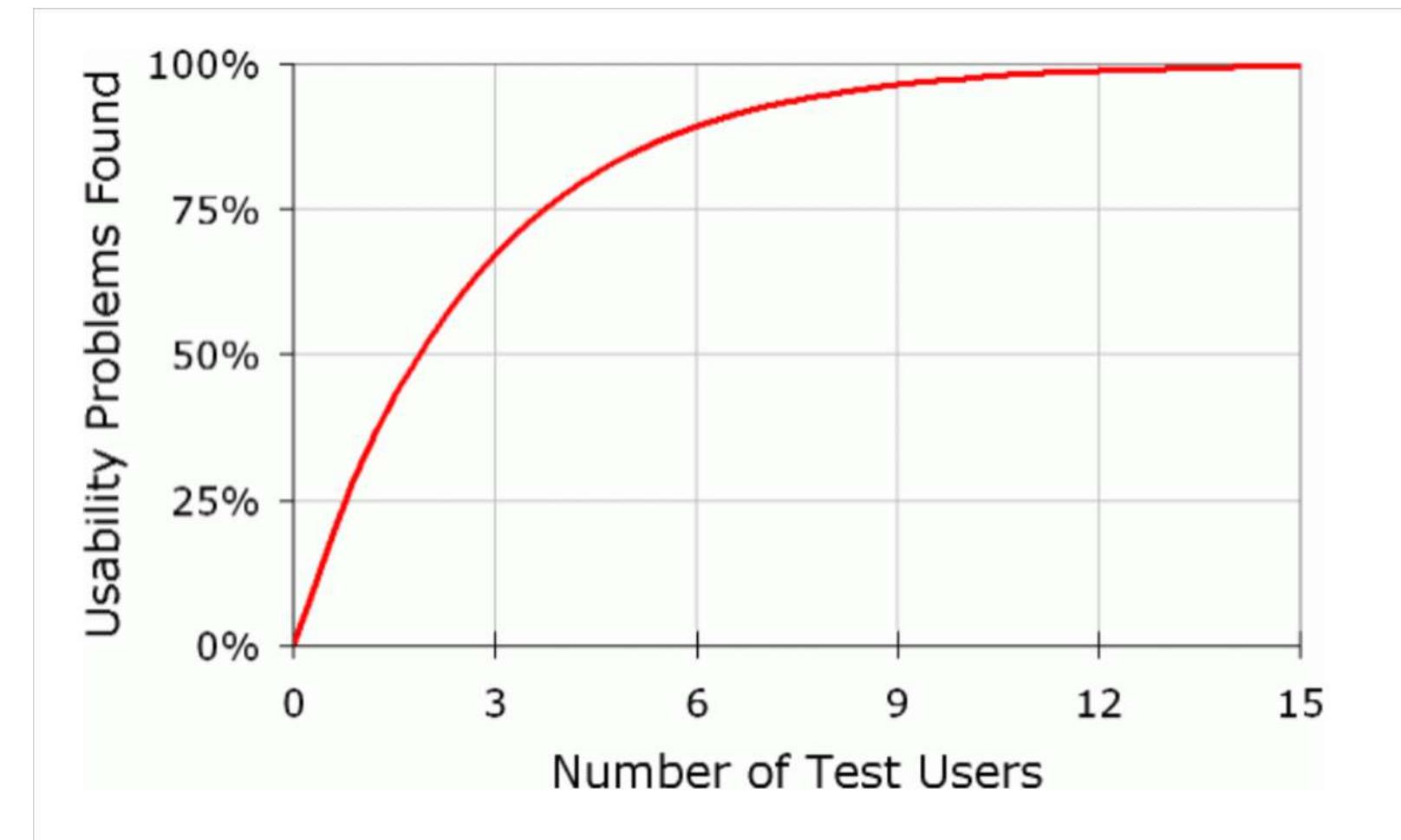
- (a) **what** to measure,
- (2) **how** to measure it.



Qualitative Studies

How Many Users to Test?

Testing just **5 users** would detect **85% of the problems** in an interface.



Quantitative Studies

How Many Users to Test?

Quantitative studies (**aiming at statistics, not insights**): Test at least **20 users** to get statistically significant numbers; tight confidence intervals require even more users.

Recruiting respondents

Recruiting right respondents for your Users Research

Internal documents about our users

- Current Analytic Reports;
- Customer Segments;
- User Profiles.

Recruitment Screener

- 1) List out basic demographics;
- 2) Write down desired behaviors;
- 3) Write down desired behaviors.

Usability Test Screener

Introduction

Hello, my name is ___. [Organization] is seeking [type of people] to take part in a usability test of a [type of Web site].

[Provide context here on the purpose of the study, location, special considerations, date/time of the sessions, and why the person's involvement will benefit him or her (such as helping the public, improving a resource he/she will use, etc.)]

Does this sound like something that interests you? Before I schedule you for a session, do you have a few moments to answer some questions?

General Questions

[Customize this by dropping or adding questions so that it reflects your site's primary audience]

1. Are you male or female? [Recruit a mix of participants]
2. Have you participated in a [focus group or usability test] in the past six months?
3. Do you, or does anyone in your home, work [in a field or employer that would disqualify you from participating, e.g., web designer, government employee, etc.]?
4. Which of the following best describes your age? [18 to 25; 26 to 39; 40 to 59; 60 - to 74; 75 and older]
5. Which of the following best describes your personal income? [e.g., under \$25,000; between \$25,000 to \$35,000, etc.]
6. Which of the following best describes your race or ethnic group? [e.g., Caucasian, Asian, Black/African-American, Latino/a or Hispanic, etc.]

Professional Demographics

[Customize this to reflect your site's primary audience]

1. What is your current position and title?
2. How long have you held this position?
3. Which of the following best describes your work environment? [e.g., commercial business, nonprofit, government agency, self-employed, etc.]
4. Where [location] do you currently work?
5. Which of the following describes your highest level of education? [e.g., some high school, high school graduate/GED, some college, college graduate, postgraduate (MA/PhD), other (explain); recruit a mix]

Computer Expertise

[Customize this to reflect what you know about your site's audience; recruit a mix of computer experience]

1. Do you use a computer? [If no, terminate]
2. Beside read email, what are typical activities you do on the computer? [e.g., gaming/entertainment; reading the news; shopping/banking; graphic design/digital pictures; programming/word processing, etc.]
3. About how many hours per week do you spend on the computer? [Recruit a range of use, e.g., 0 to 10, 11 to 25, 26+ hours per week]
4. What computer platform do you usually use? [e.g. Mac, Windows XP, etc.]

Recruiting respondents

How to find participants for your User Research



Internal Recruitment

Egnyte employees are also Egnyte users

- Build a research panel;
- Recruit from your own Panel;
- Recruit through customer support.

External Recruitment

Social sites such as Craigslist, Nextdoor, Slack and physical locations like Starbucks

- Use integrated recruitment services;
- Ask participants for referrals;
- Get colleagues and friends to Test;

Recruitment Services

Moderated services like User Interviews and unmoderated services like UserBob

- Find participants through dedicated panels;
- Hire a recruitment agency;
- Use an online community platform;

Recruiting respondents

How to find participants for your User Research

Research Panel

Would you like to share your experiences using Optimal Workshop's tools or help us test new features? Here's your chance! [?](#)

Opt in to our research panel

Adaptive Path [@AdaptivePath](#) 

Want to make an easy \$150?! The [@AdaptivePath](#) team is looking for [#research](#) participants in the [#Boston](#) area!

Jessica Striebich [@uscweetie](#)

My friend is doing research in the Boston area. Want to participate?
Email rachel dot posman @adaptivepath.com. Participants get \$150!

1 6:42 PM - Aug 23, 2016 
 See Adaptive Path's other Tweets >

dyson Shop Vacuums Fans Lighting Hand Dryers My Dyson Support 

Shop

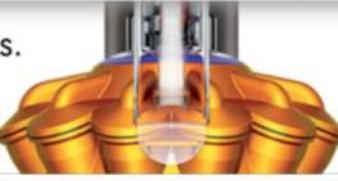
Free next day delivery Free 5 or 2 year guarantee

 [Shop Vacuum Cleaners](#)

Have a Quick Minute?
Earn £50 and help make our website better

We would like hear your views in a 30 min phone interview. To qualify, just answer a few short questions. If you're selected, you will receive an email or a phone call from one of our researchers.

Dyson Sale
Save up to £100 on selected Dyson vacuums.

 [Shop sale](#) Continue 

Reasons to shop

- Free next day delivery and returns
- Automatic guarantee registration
- Advice and support from UK-based Dyson experts

Andrew Glover [@theandrewglover](#)

Calling Australian academics: online survey "Academic Air Travel Practices & Non-Flying Alternatives". Win an iPad! https://rmit.asia.qualtrics.com/SE/?SID=SV_cVeFcjouP7QzXut ...

User research & testing documentation

Research Guide

- Recruitment Screener
- Scripts for communicating with users;
- Tasks for users;
- Prototypes;
- Scripts action in prototype.

Problem Statement Template

By Name

Updated On 00/00/0000

Come up with at least three problems to be solved.

Problem

Define the problem that your users are facing.

(Persona) needs a way to (user's need) because (insight).^x

Hypothesis

What can you do to address the problem?

We believe that by (doing something/creating a type of experience) for (these people/personas) we will achieve (this outcome). We will know this to be true when (we see this feedback/qualitative insight/quantitative measurement).

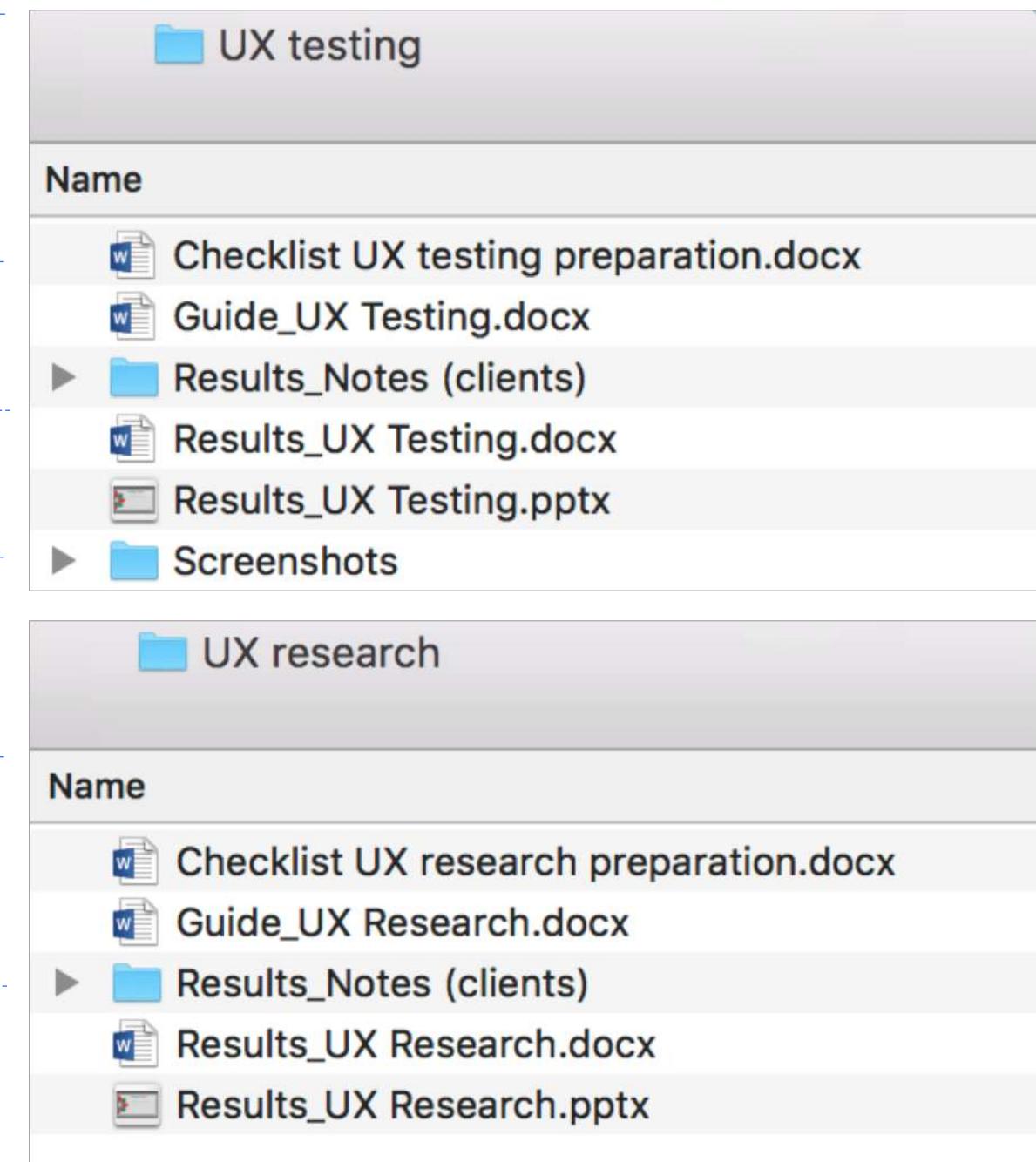
Questions To Think About

1. What are your users thinking and feeling?
2. What is important to your customers? What do they hope to get out of this product?
3. What are your users seeing, hearing and doing? What does the customer's environment look like?

User research & testing documentation

Artifacts

| Artifacts | Description |
|---------------------------------------|---|
| Guide UX Testing / UX Research | <ul style="list-style-type: none">▪ Test Goals▪ Test methods▪ Participants description▪ Scenario of the UX testing▪ Questions▪ Tasks: 1) Name of task; 2) Steps; 3)Hypotheses; 4)Expected sequence of actions. |
| Preparation Checklist | <ul style="list-style-type: none">▪ Checklist on preparing for UX testing with clients. Includes information on testing the prototype, the necessary documentation for testing. |
| Interview results | <ul style="list-style-type: none">▪ Folder in which documents describing the interview with each user. Each of the documents is created by people present at the UX testing as observers. |
| Screenshots | <ul style="list-style-type: none">▪ Preparation of screenshots of all screens of the tested interface.▪ We fix screenshots in order to change the interface in the layout or prototype, we had information about which interface was tested. |
| Report UX Testing / UX Research | <ul style="list-style-type: none">▪ Executive Summary▪ Methodology: Sessions; Participants; Evaluation▪ Tasks/Scenarios;▪ Results: Task Completion Success Rate; Errors;▪ Users Comments▪ Recommendations▪ Conclusion |
| Presentation UX Testing / UX Research | <ul style="list-style-type: none">▪ User Experience Research Guide▪ Task Completion Success Rate▪ Errors▪ User comments▪ Recommendations |

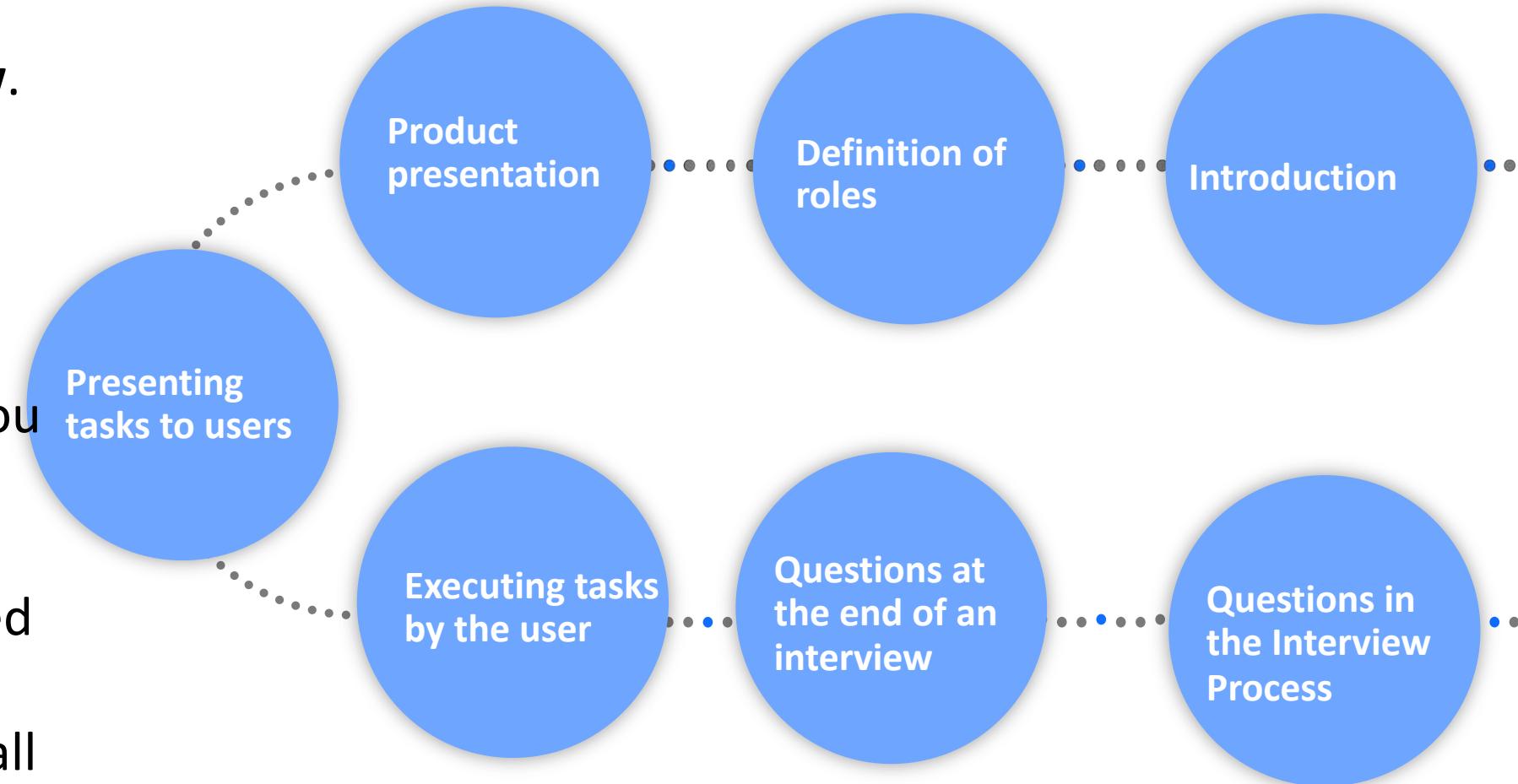


4. Research Session Process



Guidelines for Conducting Research Interviews

- Choose a setting with **little distraction**.
- Explain the **purpose of the interview**.
- Address **terms of confidentiality**.
- Explain the **format** of the interview.
- Indicate **how long** the interview usually takes.
- Tell them how to get in touch with you later if they want to.
- Ask them if they have **any questions before** you both get started with the interview.
- **Don't count on your memory** to recall their answers.



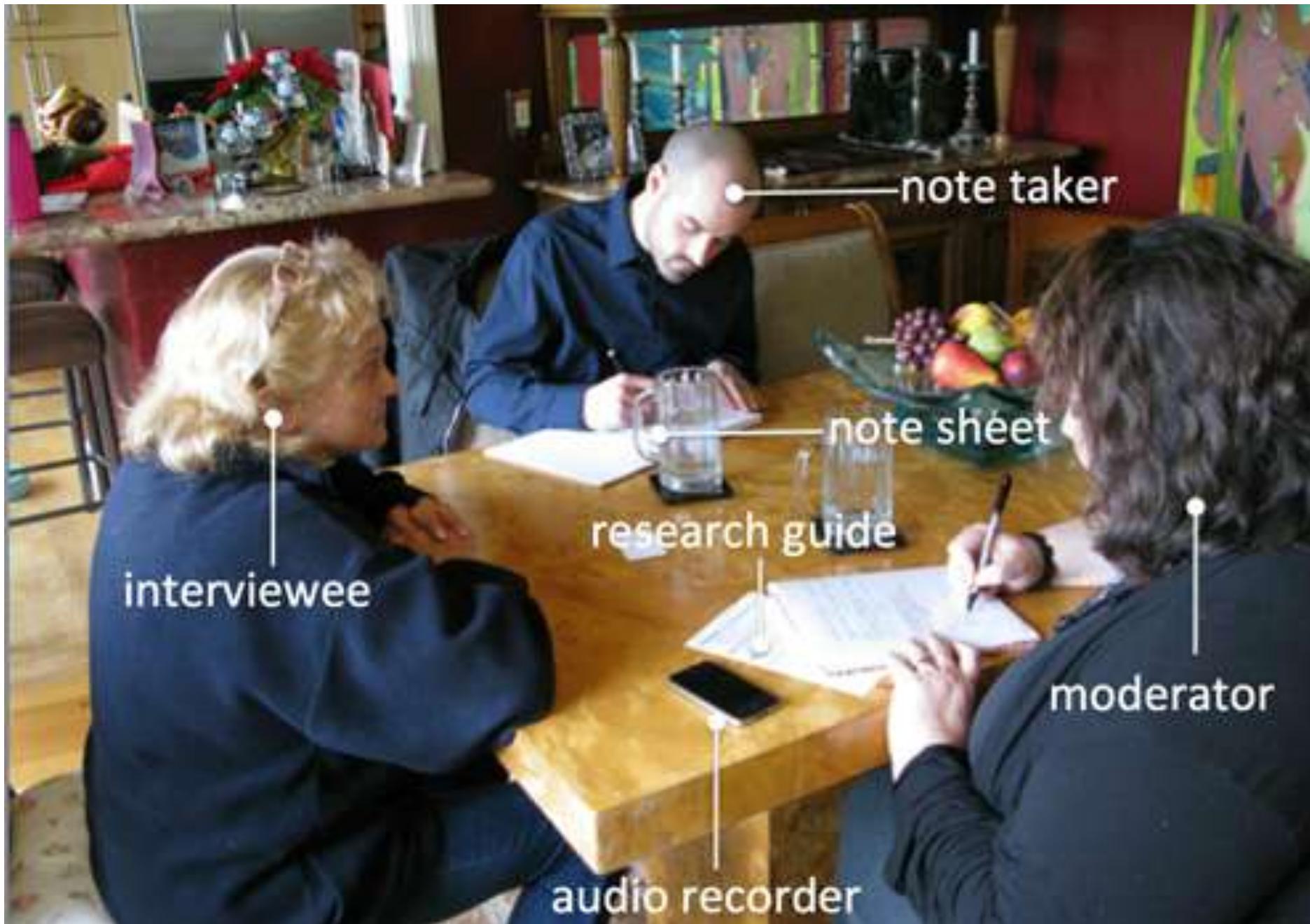
Types of Topics in Questions

- **Behaviors** - about what a person has done or is doing
- **Opinions/values** - about what a person thinks about a topic
- **Feelings** - note that respondents sometimes respond with "I think ..." so be careful to note that you're looking for feelings
- **Knowledge** - to get facts about a topic
- **Sensory** - about what people have seen, touched, heard, tasted or smelled
- **Background/demographics** - standard background questions, such as age, education, etc.

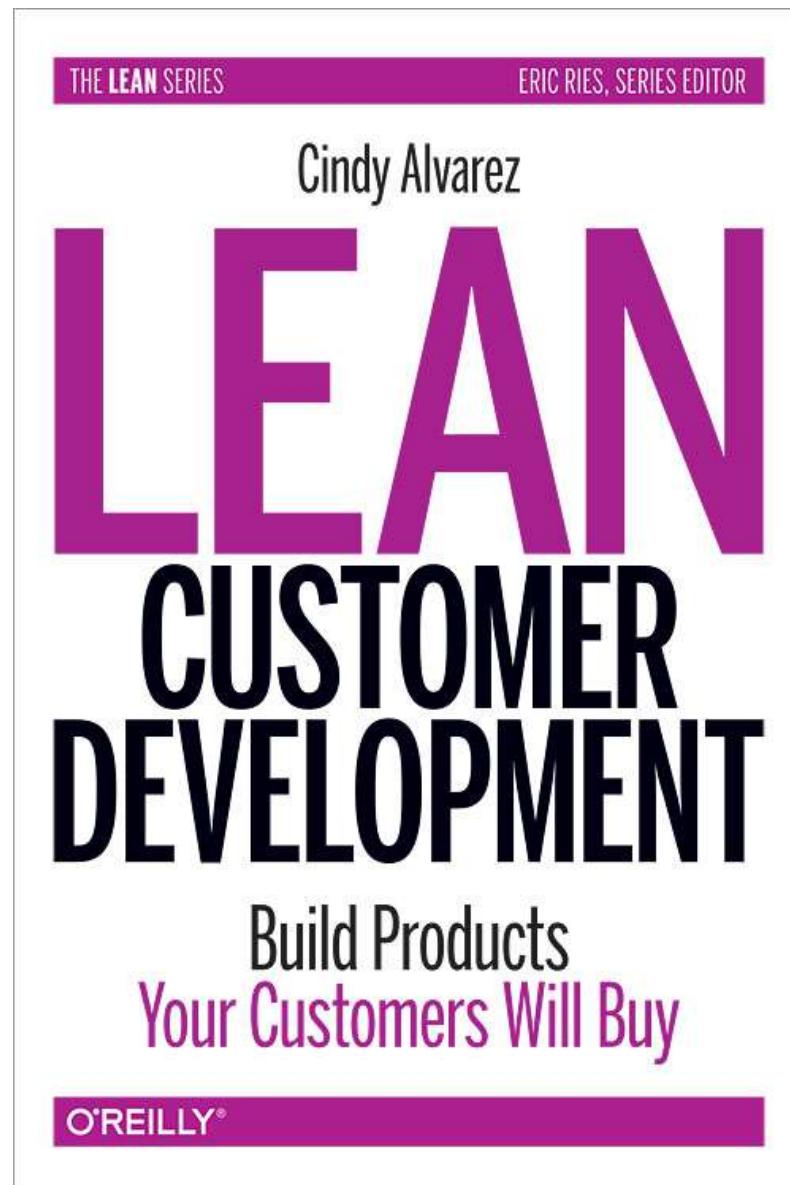
Kinds of question

- **Introducing questions:** 'Why did you...?' or 'Can you tell me about...?' Through these questions you introduce the topic.
- **Follow up questions:** 'What did you mean...?' or 'Can you give more detail...?'
- **Probing questions:** 'Do you have any examples?' or 'Could you say more about...?'
- **Specifying questions:** Such as 'What happened when you said that?' or 'What did he say next?'
- **Indirect questions:** You can ask these to get the interviewee's true opinion.
- **Structuring questions:** These move the interview on to the next subject. For example, 'Moving on to...'
- **Silence**
- **Interpreting questions:** 'Do you mean that...?' or 'Is it correct that...?'

Roles in the testing process



Resources

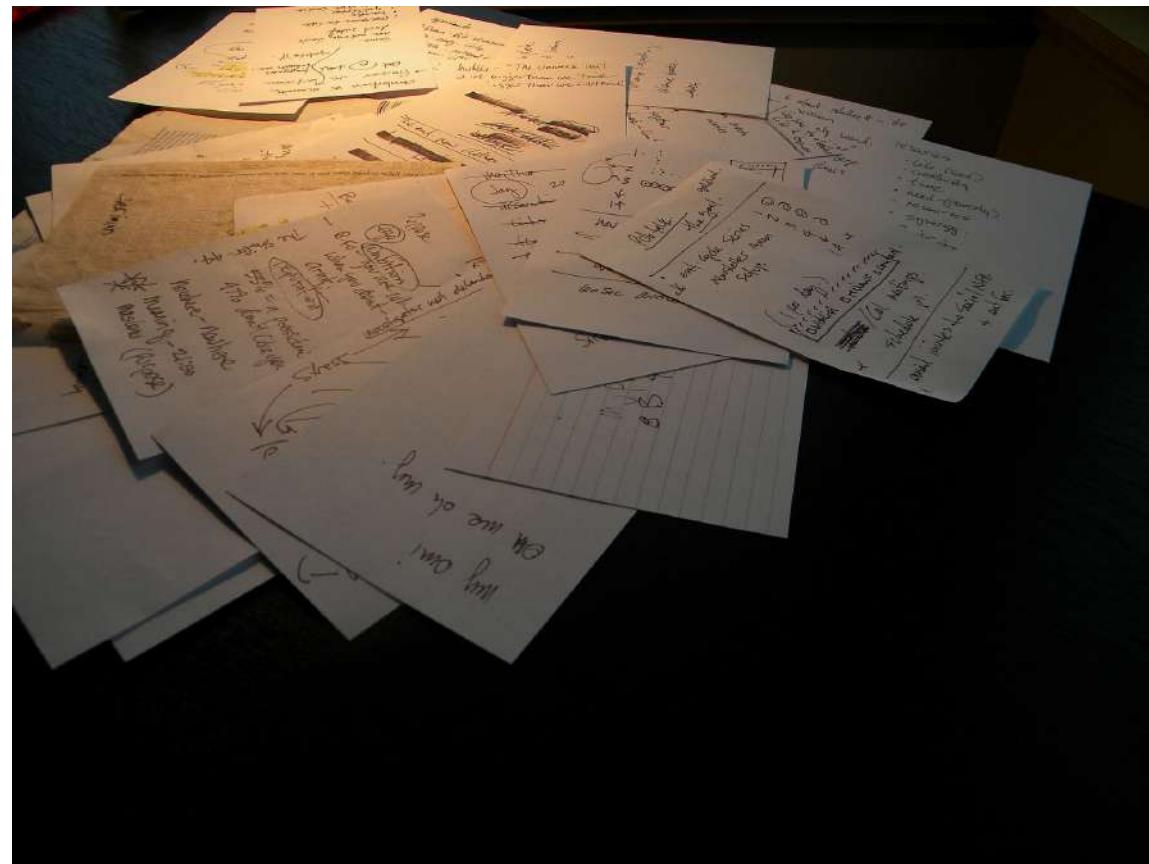
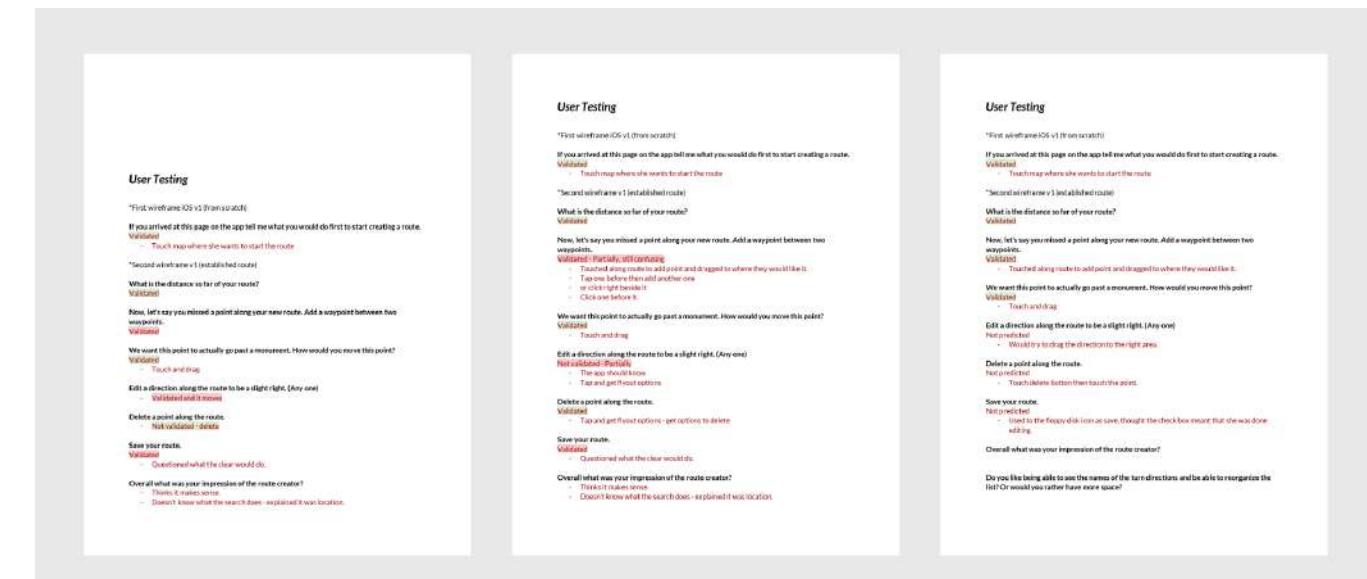
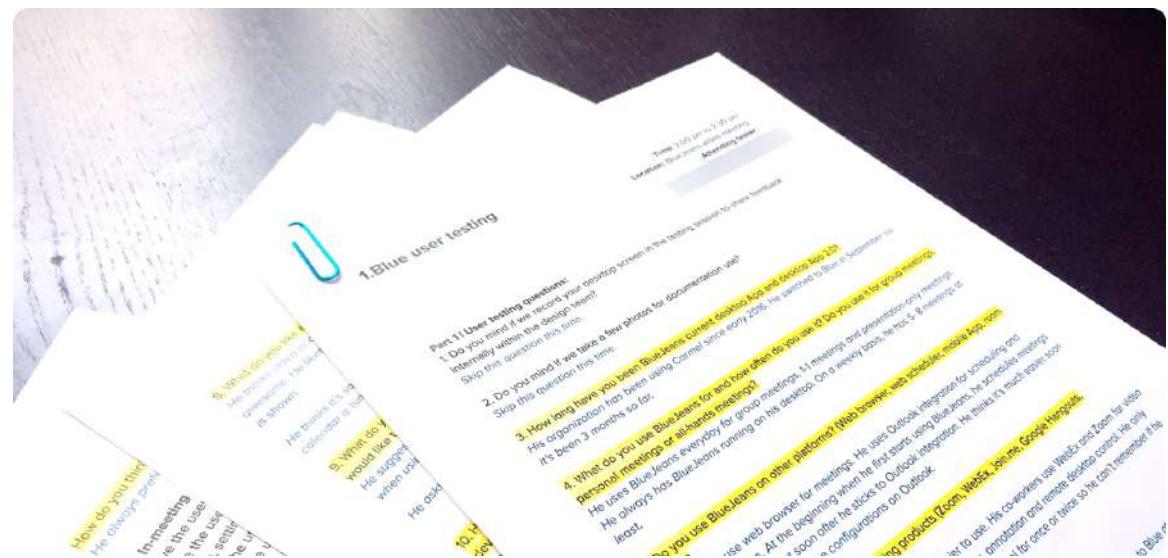


5. UX Research Results

**UX Report is Boring and
Nobody Reads It** 😞

Internal documents

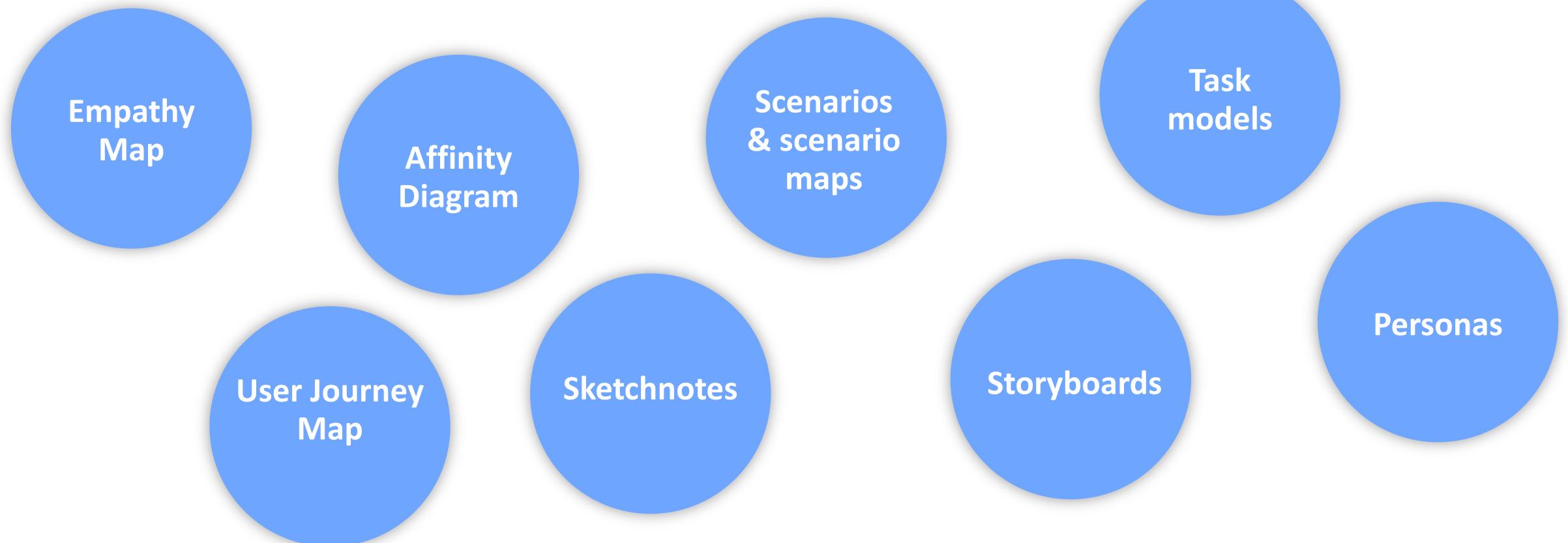
- Testing protocols
 - Unprocessed User Responses
 - Notes in the course of testing



Solution



Results of Qualitative Research



Affinity Diagram

1. **Record** each idea with a marking pen on a separate sticky note or card.
2. Look for **ideas that seem to be related** in some way. If a note seems to belong in two groups, make a second note.
3. When ideas are grouped, **select a heading for each group**. Look for a note in each grouping that captures the meaning of the group.
4. **Combine groups** into “supergroups” if appropriate.

Most Common Fears Users

Changes in the relationship

"we used to go shopping every month, but I just can't take her out anymore"

"I can't tell her about problems at work, she doesn't seem as interested as she used to be"

"I feel like I'm the parent now"

A constant feeling of worrying

"I check in with her every evening, just to see how her day was"

"What if she takes the wrong medication?"

"I always have my phone within reach during work, in case something's wrong"

A lack of personal time

"I haven't seen my friends in a long time"

"I'd rather rest at home than go out and ride by bike like I used to"

"I feel like I get snappy with my kids, while I really just want to enjoy the time we spend together"

A lack of competencies

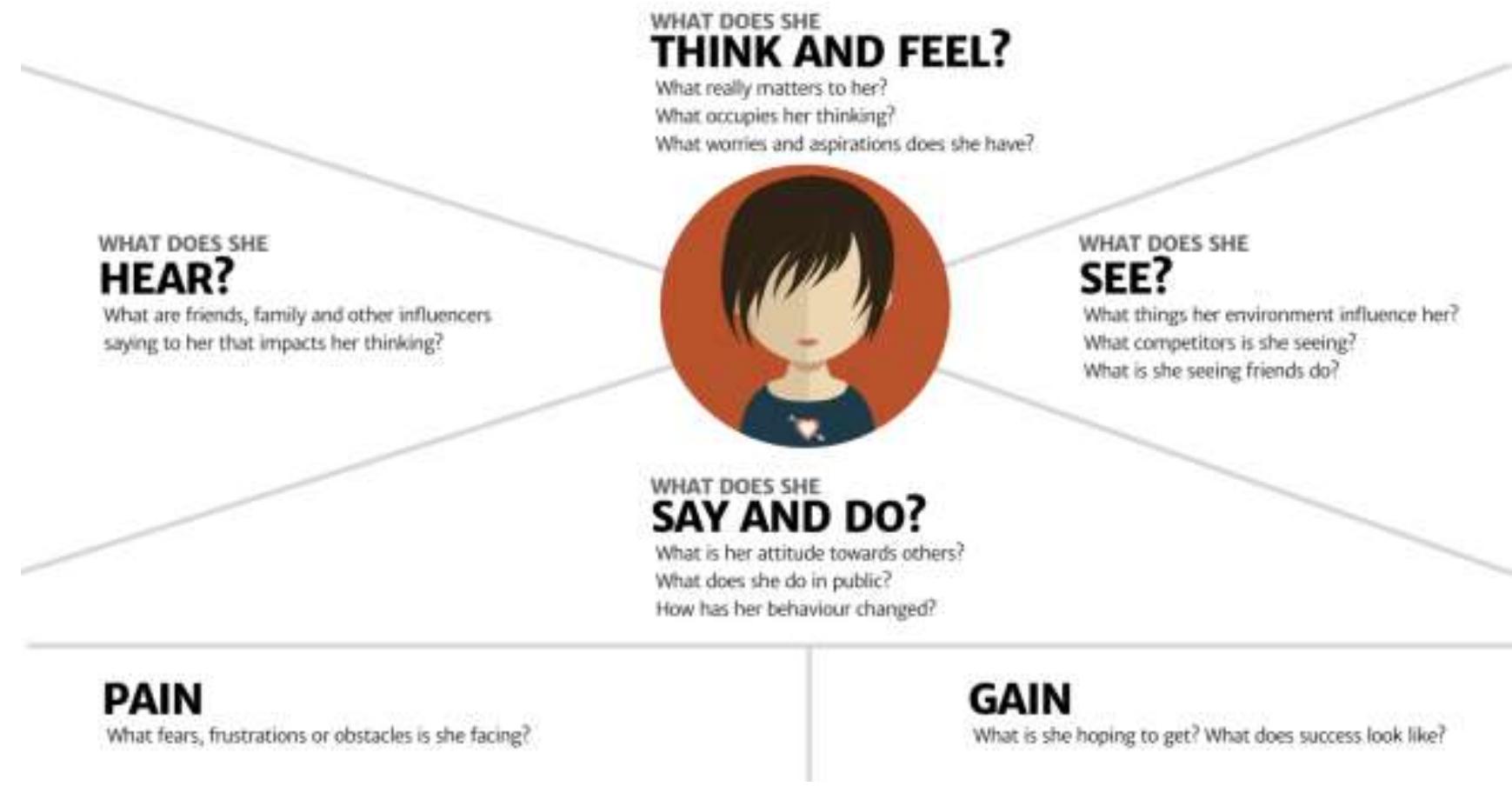
"I don't really know what these medicines do"

"I can help her now, but what if she becomes depressed or aggressive? How do I deal with that?"

"Dementia is so complex, I don't even know where to start when I want to learn more"

Empathy Map

- How the customer **thinks** and **feels**
- What the customer **hears** (how they are influenced)
- What the customer **sees**
- What the customer **says** and **does**
- Their **gains**
- Their **pains**

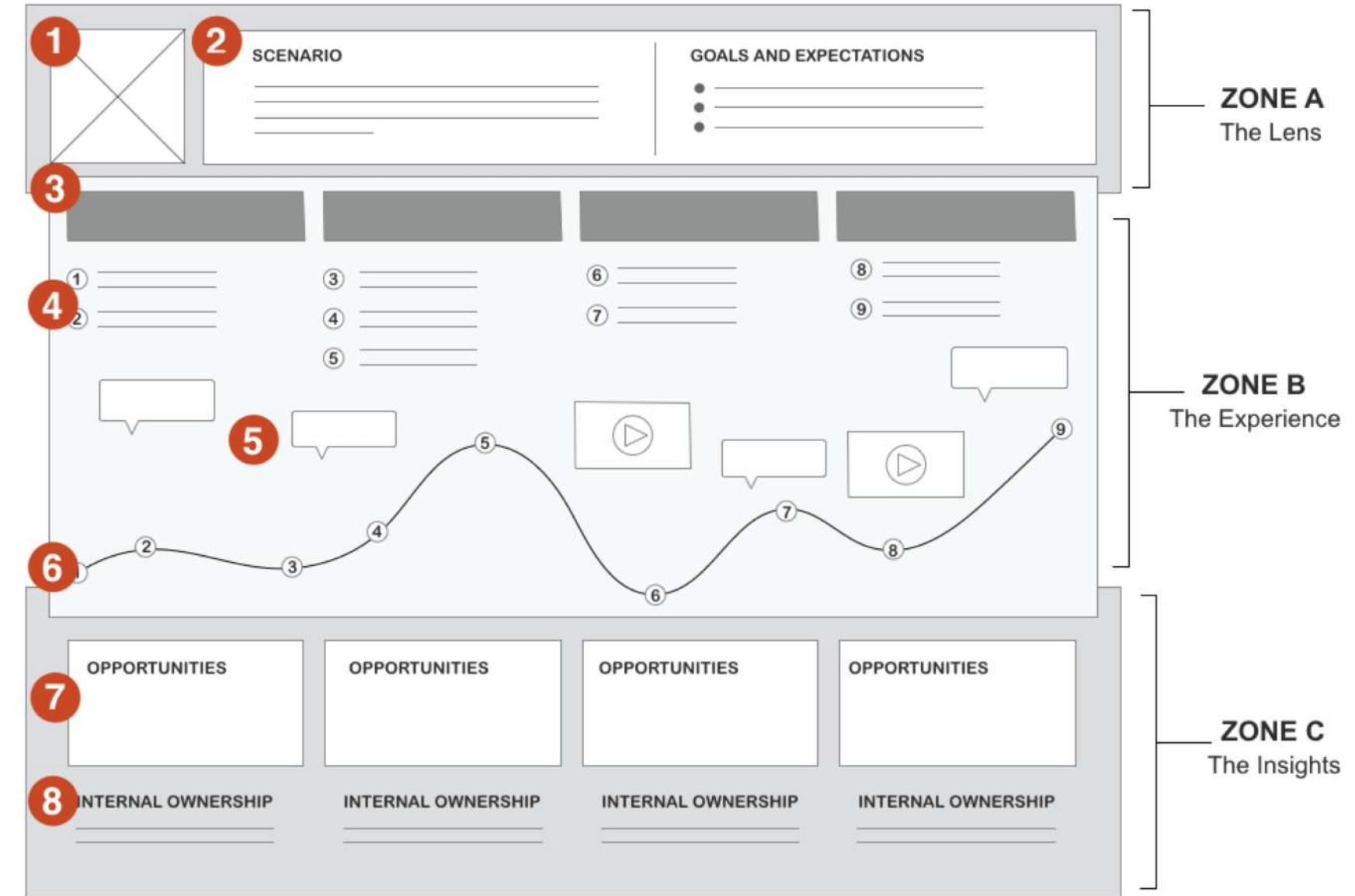


User Journey Map

Zone A: The lens provides constraints for the map by assigning **(1)** a persona (“**who**”) and **(2)** the scenario to be examined (“**what**”).

Zone B: The heart of the map is the visualized experience, usually aligned across **(3)** chunkable phases of the journey. The **(4)** actions, **(5)** thoughts, and **(6)** emotional experience of the user has throughout the journey can be supplemented with quotes or videos from research.

Zone C: The output should vary based on the business goal the map supports, but it could describe the insights and pain points discovered, and the **(7)** opportunities to focus on going forward, as well as **(8)** internal ownership.



Personas



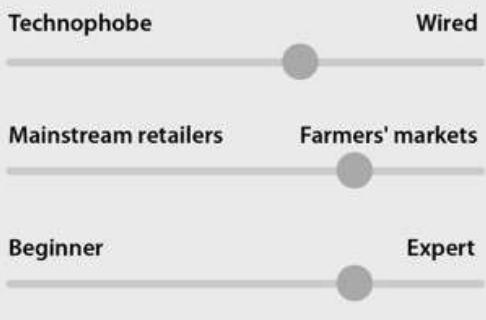
Rachel

Cooking foodie

| | |
|-------------------|---------------------------|
| Age | 28 |
| Occupation | Government policy advisor |
| Education | Bachelor degree |
| Family status | Defacto |
| Location | Surry Hills, NSW |
| Challenges | Mildly dyslexic |
| Online locations: | Work, Mobile |
| Computer type: | Windows desktop, iPhone |
| Connection type: | ADSL2, 3G mobile |
| Internet usage: | 5–6 hrs |

Top five bookmarked websites:

- Twitter
- Facebook
- Epicurious
- Gmail
- Food blogs (various)



Food is central to Rachel's enjoyment in life. If she's not talking about it, she's thinking about it.

What is getting in the way?

- Forgetting, or lacking time, to plan food for the week ahead
- Eating out
- Lack of time to cook more complex meals

How will Rachel interact with FlavourCrusader?

Referrer Twitter mention

Introduction touchpoint iTunes page

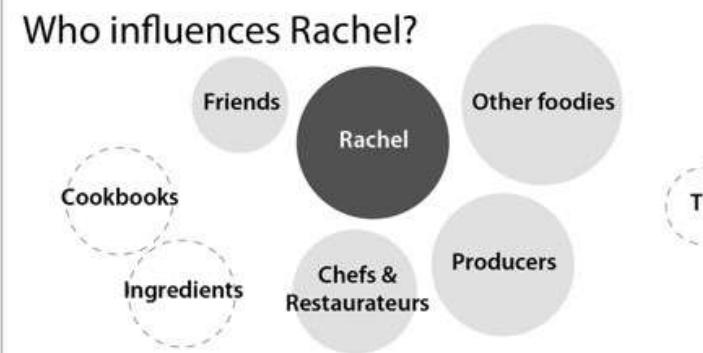
Questions

- What produce is currently in season?
- When is a specific ingredient come into season?
- What can I do with a specific ingredient? What goes with it? How do I prepare/cook it?
- What can I do with the food I have in the fridge?
- Where is a specific ingredient grown in Australia?

Reasons to return

- Checking what's in season when planning the week's meals
- Finding when something comes into season to know when a recipe can be made
- Finding recipes for a specific ingredient
- Post a photo of a cooked meal from a listed recipe
- Post own recipe (via website)
- Post a photo of interesting produce found at a market

Who influences Rachel?



Rachel's situation

Goals/Motivation

- Enjoy great food to share with friends and family
- Find new ingredients or techniques (to share with other foodies)
- Increase knowledge about food — cooking, preparation, seasonality, provenance etc.

Frustrations and pain points

- Not being able to find good quality, locally-sourced and affordable produce between market days
- The "cult of organic" — people who don't really "get it"
- Friends not being interested in food as much
- Online recipes and sites (like Epicurious) so American-centric

Key words

chefs, restaurants, recipes, cookbooks, ingredients, seasonal, local, farmers' markets

Rachel's story

Food was always a big part of family activities — a chance each day to meet around the table — and I'm continuing in that tradition. On weekends I'll often spend the whole day going to the markets, preparing then cooking in the afternoon to host a dinner with friends.

My friends were getting sick of me talking about food, so I was really glad to connect with food bloggers and people on Twitter who share my passion for food. I love the stories behind food — whether from food bloggers or the producers at my local farmers' market. That direct connection to producers is much more important to me than if something is 'certified' or not. I learn so much from them about seasonality, techniques and tips on preparing and cooking food, and just what's involved in getting the food on my plate. I appreciate their efforts so much more since I've got to know some of them better.

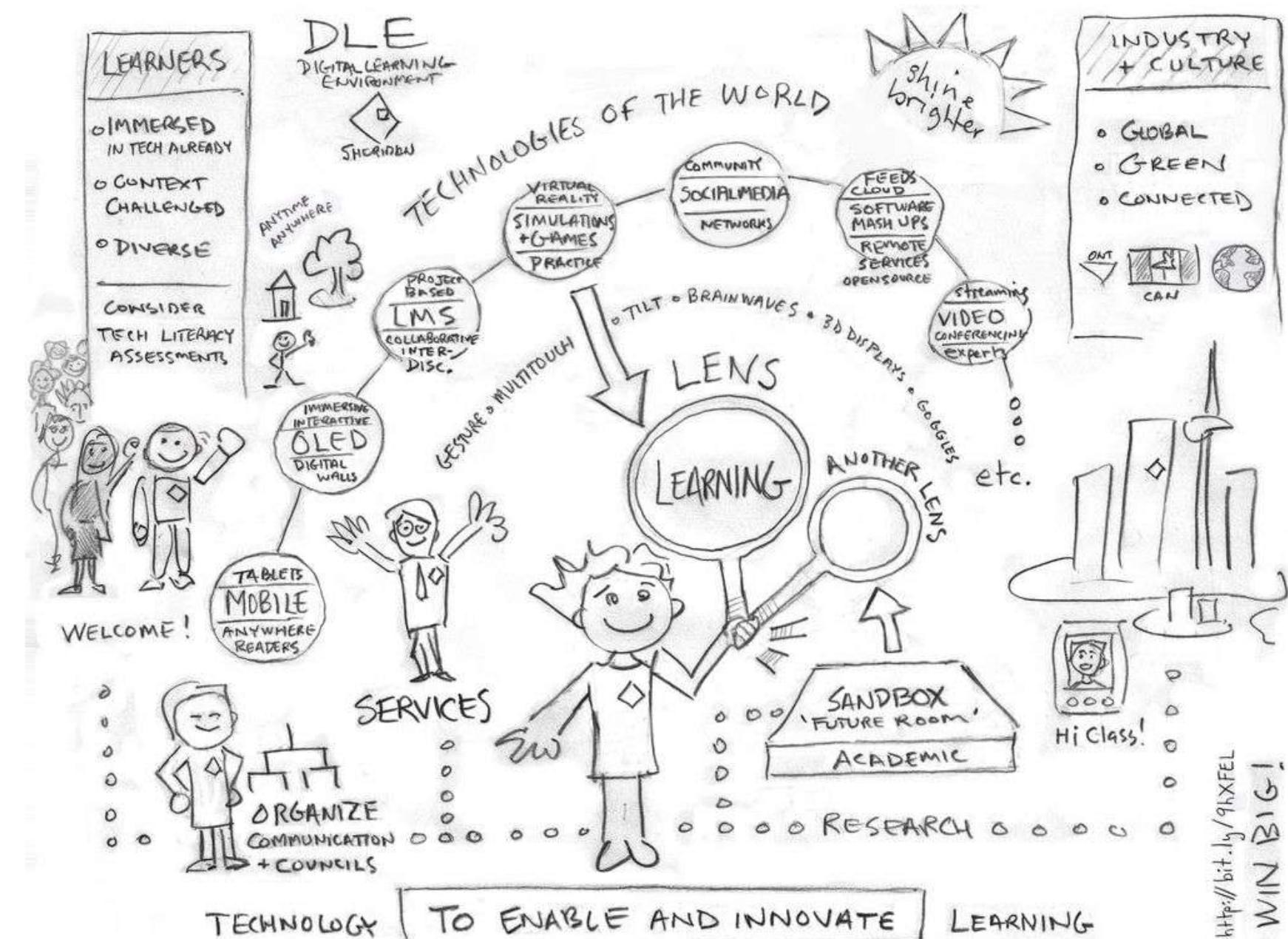
I really enjoy simple, produce-driven recipes and I get excited finding new ingredients and flavours and trying new techniques. I'm always learning. I have so many cookbooks, but I don't really get into them as much as I'd like.

I don't like buying fresh fruit and veg from supermarkets because I find the quality and taste of the produce is pretty poor. I try to stock up at the farmers' markets on the weekends instead. It's a bit more expensive, but it tastes soooo much better, and lasts longer anyway. I try to get to the local greengrocer instead of Coles or Woolies for the things I can't get elsewhere or if I've not been able to get to the markets for the week — but I wish there were more options.

Sketchnotes

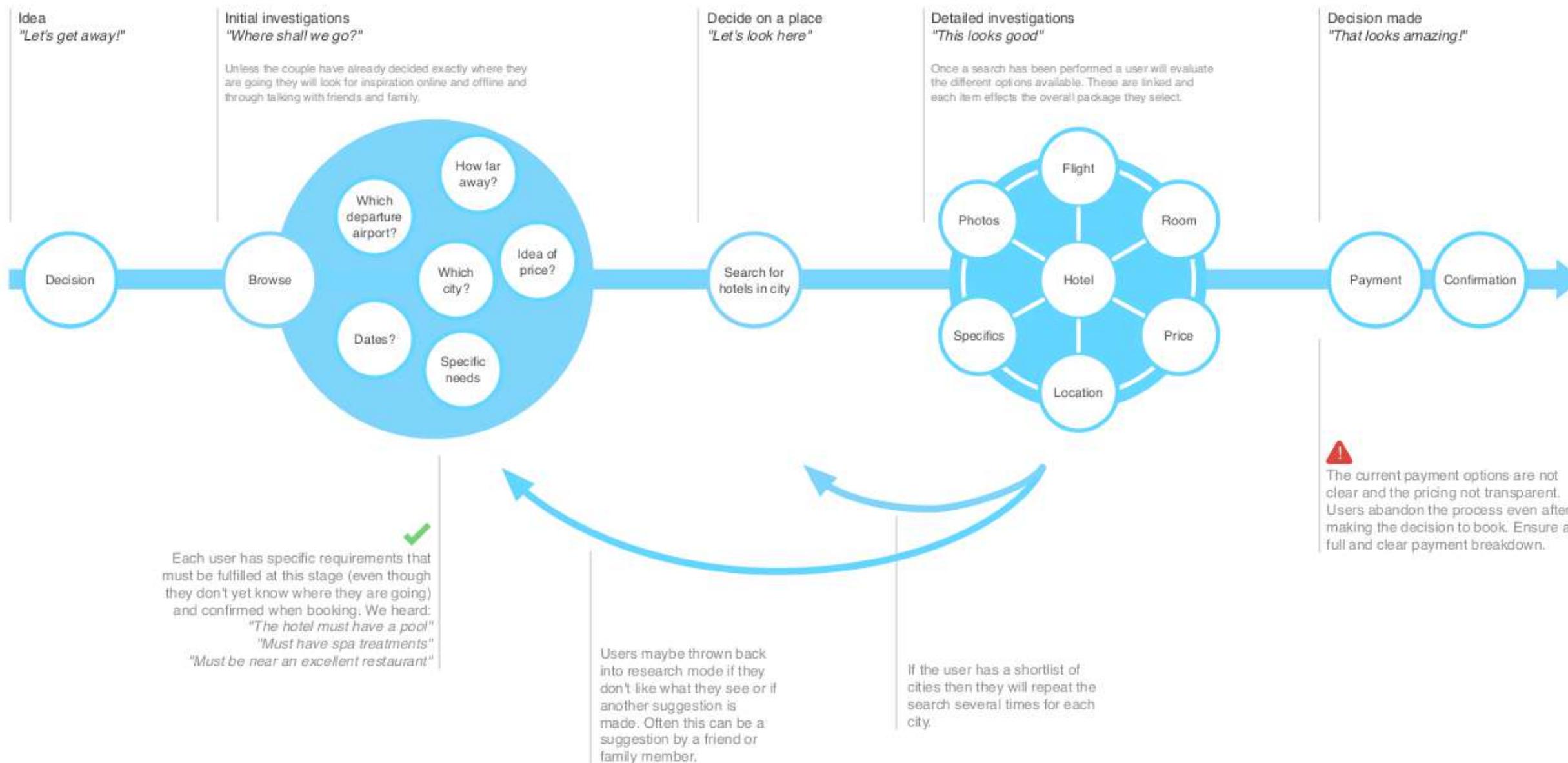
Soft Systems methodology

1. Enter **situation** considered problematical
2. Express the **problem situation**
3. Formulate **root definitions** of **relevant systems** of purposeful activity
4. Build **conceptual models** of the systems named in the root definitions
5. Compare **models with real world situations**
6. Define possible **changes** which are both possible and feasible
7. Take **action to improve** the problem situation



Task models

Goal: To find the perfect romantic city break



Storyboards

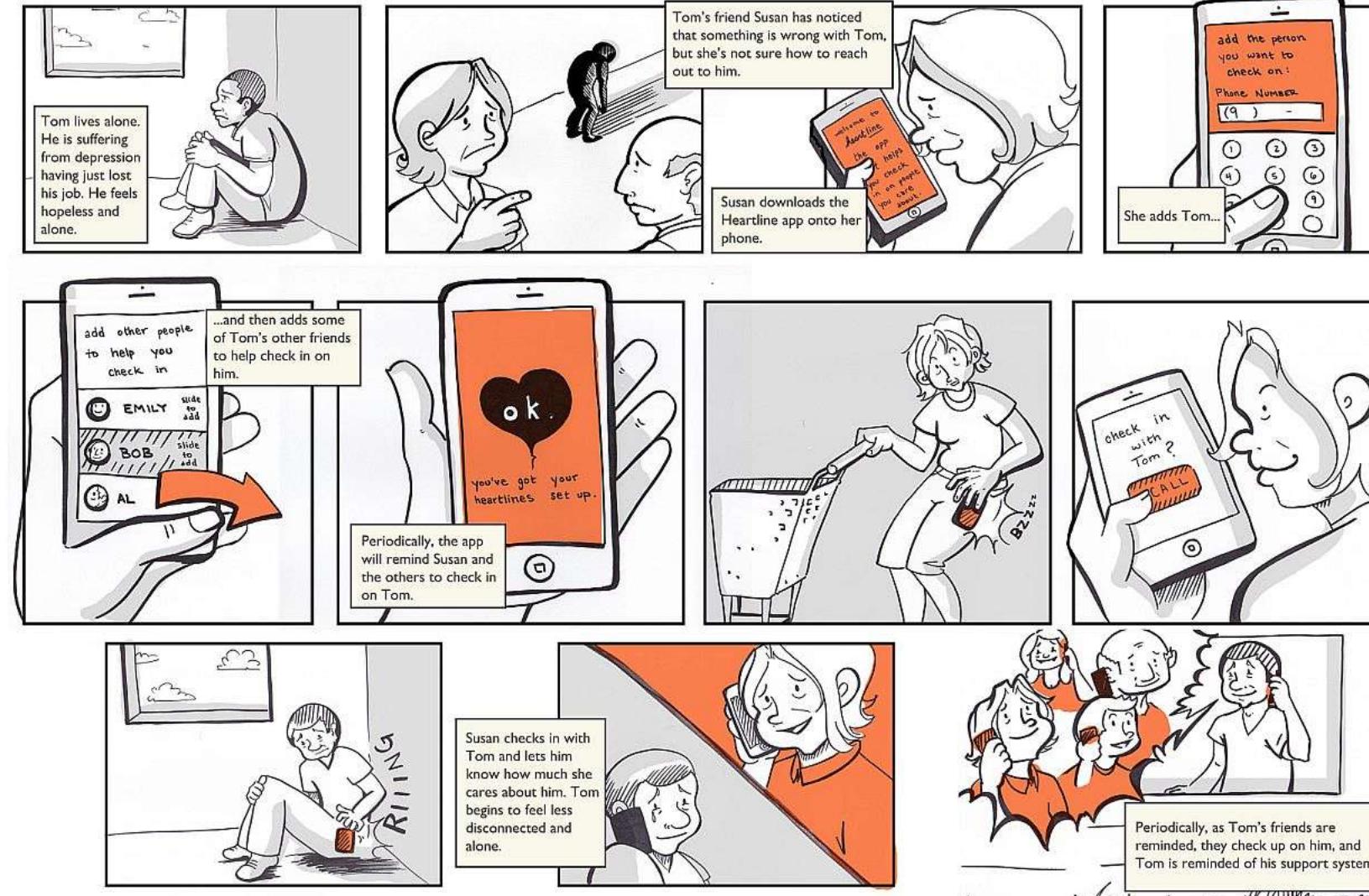
 Tom lives alone. He's suffering from depression having just lost his job.

 Tom's friend Susan has noticed that something is wrong with Tom, but she's not sure how to reach out to him.

 Susan downloads Heartline app onto her phone and adds Tom.

Periodically the app will remind Susan to check in on Tom.

 Susan checks in with Tom and lets him know how much she cares about him.



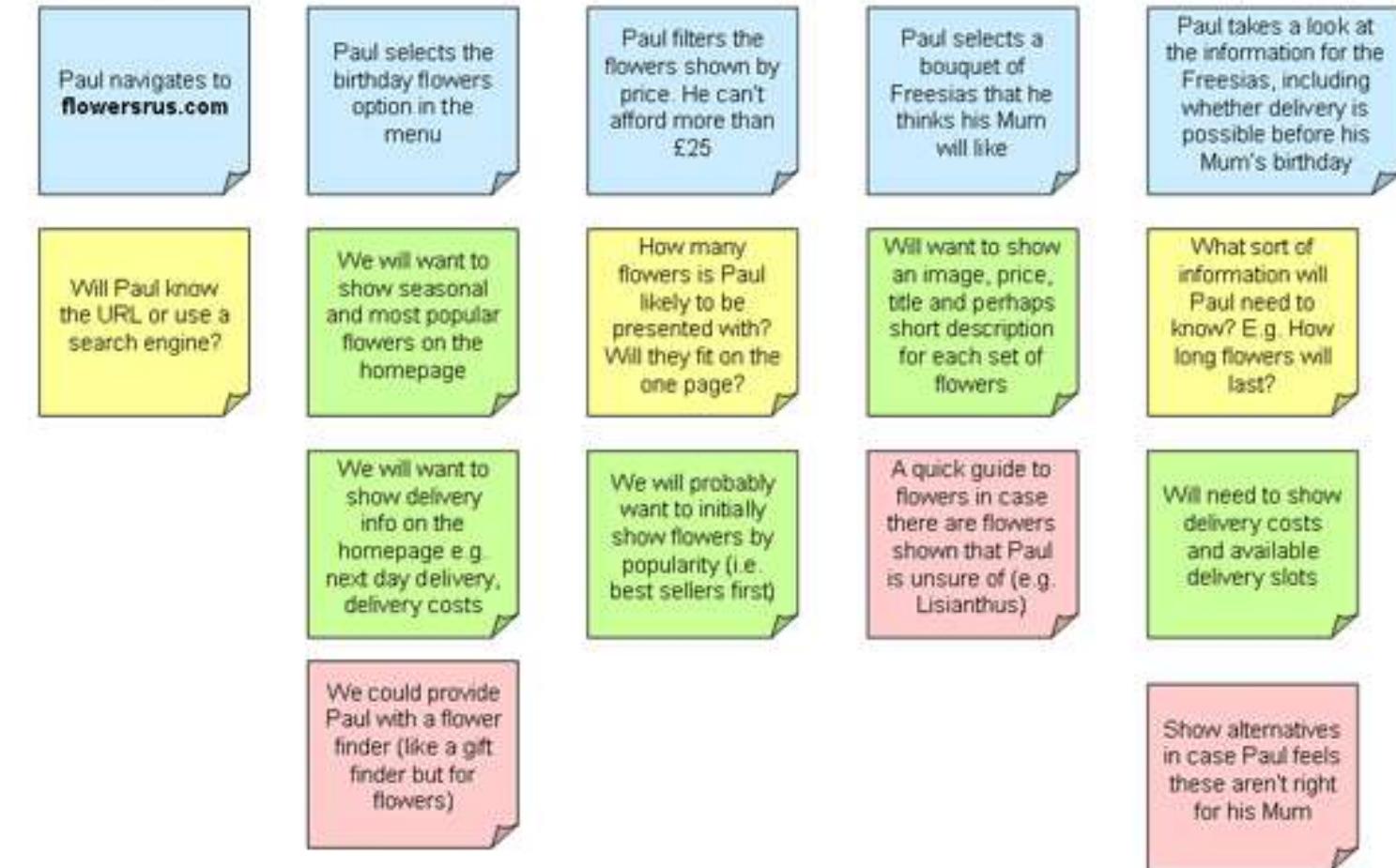
Scenarios & scenario maps

1. Enter **situation** considered problematical
2. Express the **problem situation**
3. Formulate **root definitions of relevant systems** of purposeful activity
4. Build **conceptual models** of the systems named in the root definitions
5. Compare **models with real world situations**
6. Define possible **changes** which are both possible and feasible
7. Take **action to improve** the problem situation



Paul - the online student

Ordering flowers for his Mum's birthday



Contacts

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