UI/UX DESIGN

Lecture 10. **UX research**

What is user experience research?

User experience research helps design teams identify areas of opportunity to improve user interfaces and enhance the overall user experience.

UX research can reveal insights about target users across all phases of product development—from strategy and planning to product launch and post-launch improvements.

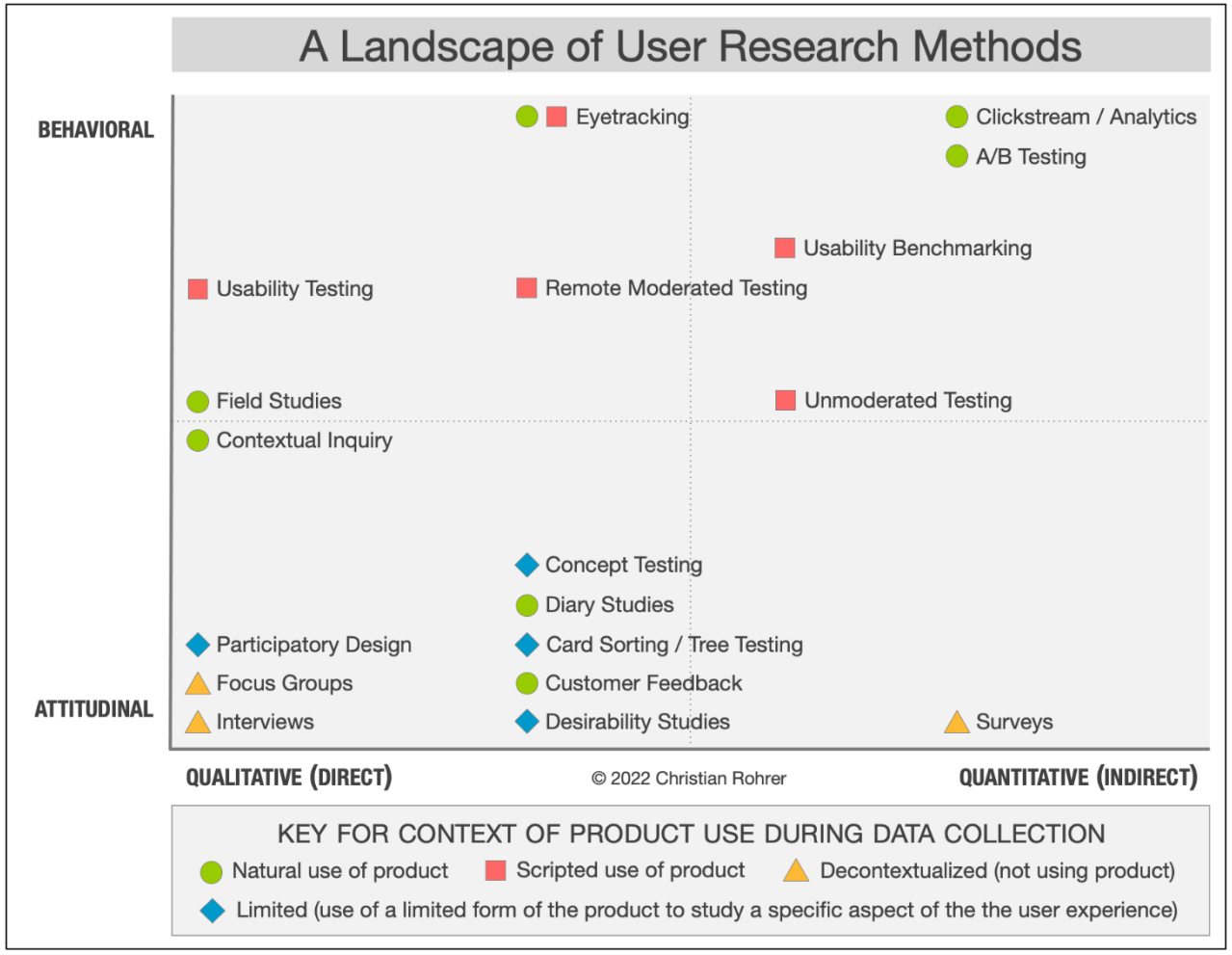
A robust UX research framework includes both quantitative and qualitative research.

Reasons for Doing UX Research

1. Create a product that is truly relevant to users.
2. Create a product that is easy and pleasurable to use.
3. Save time and resources.

Three-Dimensional Framework

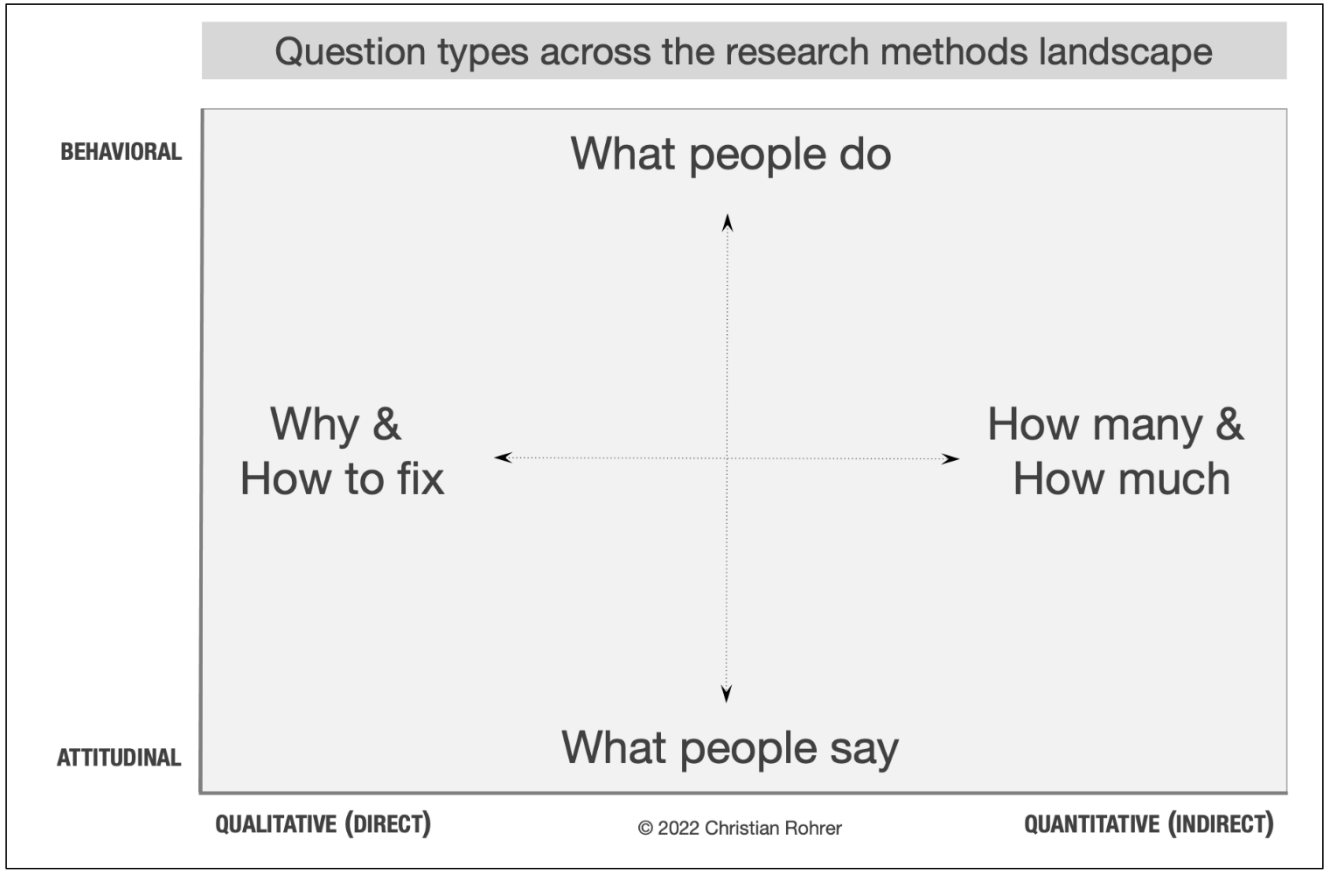
- Qualitative vs. Quantitative
- Attitudinal vs. Behavioral
- Context of Use



Three-Dimensional Framework

Qualitative/Quantitative

A part of the research study can provide measurable (quantifiable) result. For example, data that is collected by an analytics system or information derived from the results of a survey. This type of research is described as quantitative. On the flip side, in some types of research, only a qualitative assessment is possible, i.e. the results consist of a subjective interpretation of the researcher or participant (convenient vs inconvenient, simple vs confusing, etc.).



Three-Dimensional Framework

Behavioural/Attitudinal

Behavioural research methods tend to answer the question “What do users do?”

While attitudinal methods focus on “What do users think?” The answers don’t always mesh, but depending on the purpose of the study, both are equally important.

Context of Product Use

- in conjunction with the natural use of the product
- in conjunction with a pre-created scenario (script) for using the product
- without the product’s involvement in the study
- with mixed use of the product, or a combination of the above mentioned methods

Phases of Product Development (the Time Dimension)

Product-Development Stage		
Strategize	Design	Launch & Assess
Research goal: Find new directions and opportunities	**Research goal:** Improve usability of design	**Research goal:** Measure product performance against itself or its competition
Generative research methods	Formative research methods	Summative research methods
Example methods		
Field studies, diary studies, interviews, surveys, participatory design, concept testing	Card sorting, tree testing, usability testing, remote testing (moderated and unmoderated)	Usability benchmarking, unmoderated UX testing, A/B testing, clickstream / analytics, surveys

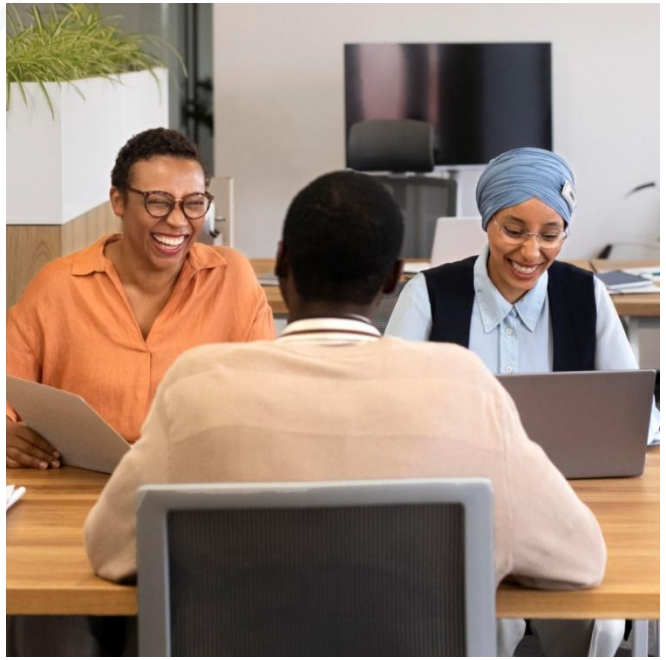
Conversation starters

Conversation starters - outlining ideas and observing user reactions.

- Identify exactly what you want to get reactions to.
- Create a list of ideas for discussion.
- Allow freedom to express silly and absurd ideas.
- Be open to any interpretation.
- Ask questions about what the person expects from your product solution.

User interview

User interview is a way to learn about a person's thinking, behaviour, and lifestyle



- Prepare a list of questions in advance to find out the answers.
- Start the conversation with general questions about habits, values and lifestyle.
- Take notes after the person verbatim, not as you interpreted.
- Observe body language and facial expressions and consider the atmosphere of the conversation.

Interviews with experts

Interviews with experts are necessary to learn the specifics of the subject area, novelties, success stories.

- Determine what kind of experts you need.
- Familiarize them with a sample list of questions in advance.
- Recruit people with different perspectives on the issue.
- Prepare a flexible discussion plan with the possibility of small digressions.
- Be sure to take notes so you can refer back to the terminology.

Focus group

Focus group allows you to seek opinions on a number of specific topics through a process of discussion.

- Select relevant respondents, taking into account possible gender, cultural and age conflicts.
- Make a list of topics to be discussed that are important to all consumers.
- Ensure that each topic is discussed within a strict time limit.
- Prepare a comfortable room suitable for the topics to be discussed.
- Analyze the results.

Field research

Field research - collect information about the realization of a product/service in a specific setting.

- Determine what user characteristics you want to find out.
- Choose an appropriate method (observation, experimentation, hall-tests and home-tests, survey).
- Structure the information.
- Formulate hypotheses for further experiments.

Surveys

Surveys are used to find out facts, opinions and sentiments by answering questions.

- Create a list of questions (keep only the most important ones).
- Rank them in order from simple to complex.
- Select the target audience.
- Decide on the type of survey: e-mail, intercept, face-to-face.
- Select a data collection instrument.
- Analyze the information obtained.

A diary study

A diary study is necessary to record interactions with a product/service

- Define the object of research and the behaviour to be analyzed (habits, scenarios, motivation, perception, user journey).
- Choose a way to capture the information: text or video and make a timeline.
- Conduct a briefing, give clear instructions.
- Organize a post-research interview.

Card sorting

Card sorting helps to develop an effective information structure

- Prepare cards with names or pictures.
- As you adapt the deck to the purpose of the study, try to mix concrete concepts with more abstract ones.
- Have the cards sorted into categories, highlighting what is important.
- There are several variations: let them name their own categories, add their own cards, or use suggested cards.

Customer feedback

Customer feedback serves to identify obvious bugs, and to learn what's missing and where users are confused

- Identify a list of sources.
- Create a list of categories into which comments will be categorized.
- Process the feedback.
- Prioritize the hypotheses.
- Discuss bugs and hypotheses with the team.

Respondent design

Respondent design is necessary to know the mental and behavioural pattern of the users.

- Prepare a set of page elements in advance.
- Provide materials to enable you to create the elements yourself.
- Select a relevant sample of users.
- Provide a briefing, make sure the purpose of all elements is clear.
- Ask for justification for your design decisions.

Testing a paper prototype

Testing a paper prototype allows you to quickly identify flaws in the script

- Find the target audience.
- Prepare a paper prototype.
- Define a list of scenarios that the user will go through.
- Choose the method of testing (with or without refinement).
- During the study, give the user the opportunity to express his/her thoughts.

Usability testing

Usability testing reveals the shortcomings of a ready prototype of a product or an already running service.

- Recruit users from different groups of your target audience.
- Work out scenarios in advance.
- Choose a device and platform on which the product works stably.
- Decide on the methodology (face-to-face/remote, moderated/unmoderated) .
- Set up screen capture (make sure internet connection is stable) .
- Analyze user scenarios and form hypotheses.

A feasibility study

A feasibility study is conducted to determine the type of implementation that best meets the objectives.

- Form a clear list of criteria characterizing the service objectives.
- Prepare several variants of visual realization.
- Evaluate the scenario in each of the variants according to the criteria.
- Make a conclusion about what is important and what should be abandoned.

Eyetracking

Eyetracking determines which points subjects look at while using the resource.

- Find an eyetracking specialist.
- Find a minimum of 40 respondents for a satisfactory heat map.
- Prepare a list of screens and clearly articulate simple scenarios.
- Take the interpretation of the results seriously.
- Formulate hypotheses for further testing.

A/B Testing

A/B Testing is a popular method for comparing two versions of a site or application that differ in one or several elements. The audience is randomly split into two segments. Each segment only uses one of the two versions.
After reaching statistical significance, the results are used to conclude which option was the best according to the selected KPI (for example, in-app purchases). A/B tests are performed by using specialized services, such as Google Optimize for websites, and Optimizely for apps.

THANK YOU!