

What's the deal with user research anyway?

The challenges of designing for people

Dalia El-Shimy

UX Research Lead // Shopify

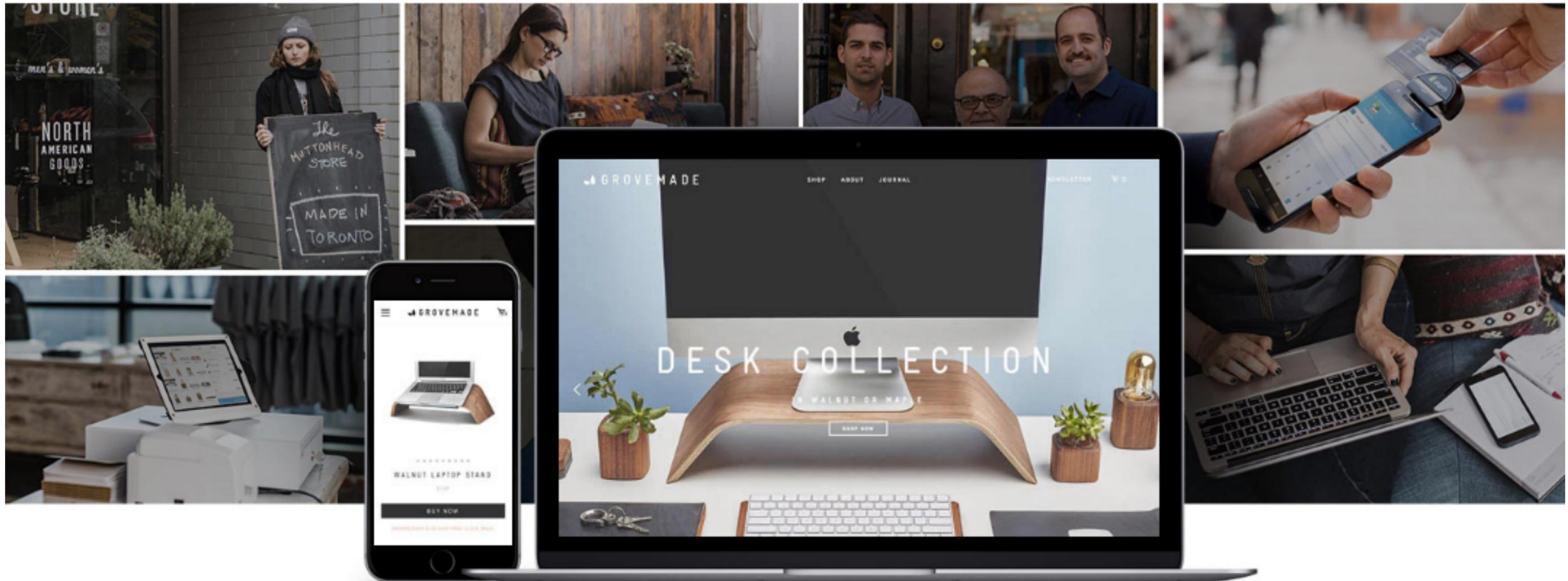


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What is user experience research?





User research “focuses on understanding user **behaviours, needs,** and **motivations** through observation techniques, task analysis, and other feedback methodologies.”







Jared M. Spool

Follow

Thank you for encouraging my behavior! Founder of @UIE. Co-Founder of @CenterCentre. Exploring...

Apr 19, 2015 · 6 min read

The Redesign of the Design Process

The user researcher's role has changed. It used to be about running studies.

Now it's about growing the team's understanding of their users.

Top highlight

We're just trying to understand **human beings**, and **why they do the things they do**.

To do this we **collect information**.

And then we spend a bunch of time trying to **make sense** of this information.

But wait... how is this different from other types of research?

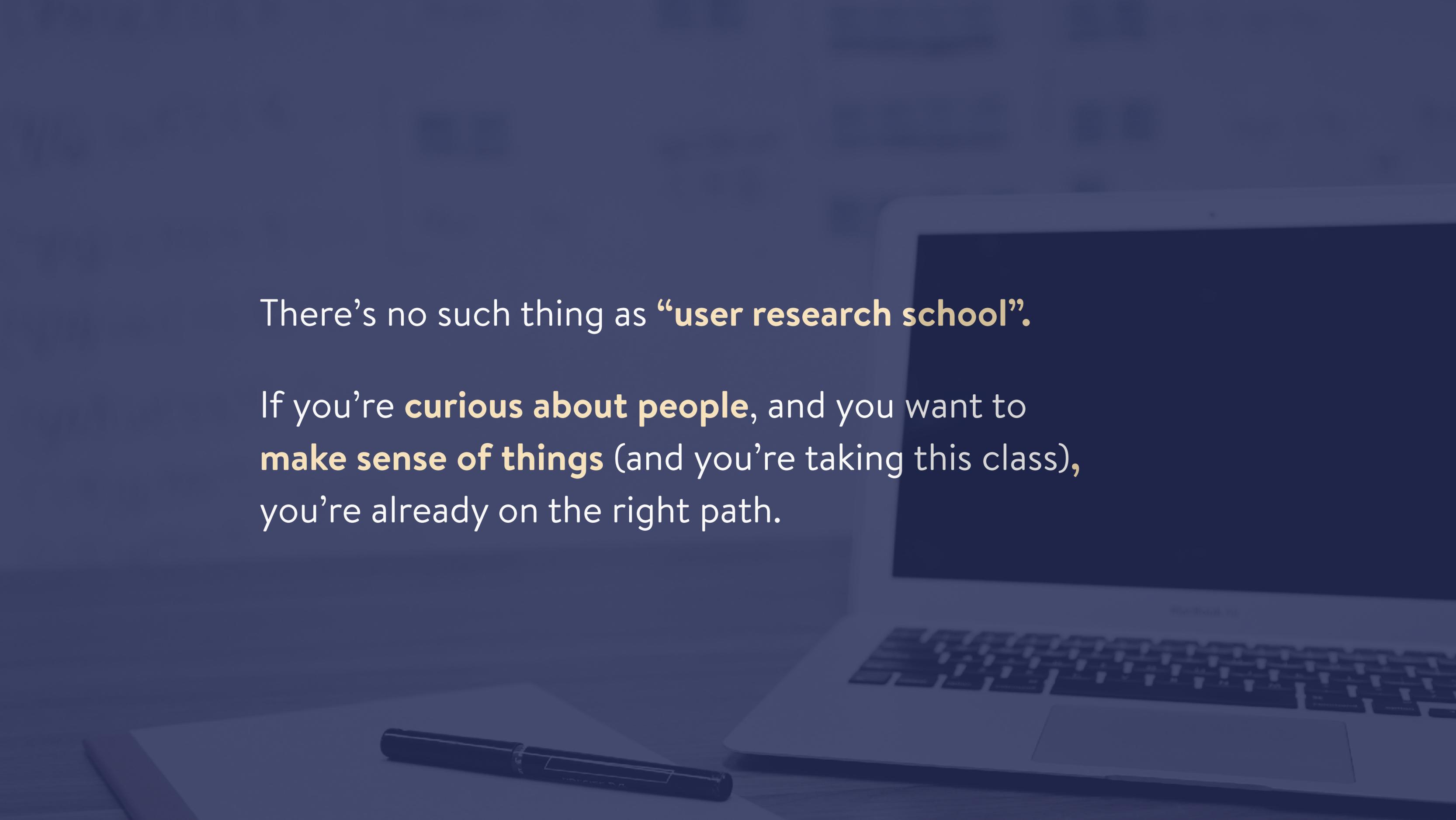
- It typically exists within the context of a broader product or process
- Its goal isn't in and of itself simply to gather knowledge
- It's conducted with the purpose of bringing about direct improvement to a process or product
- It places people before the product or process
- It tends to occur in an iterative manner, rather than a one-off



So **why** do we do user research?

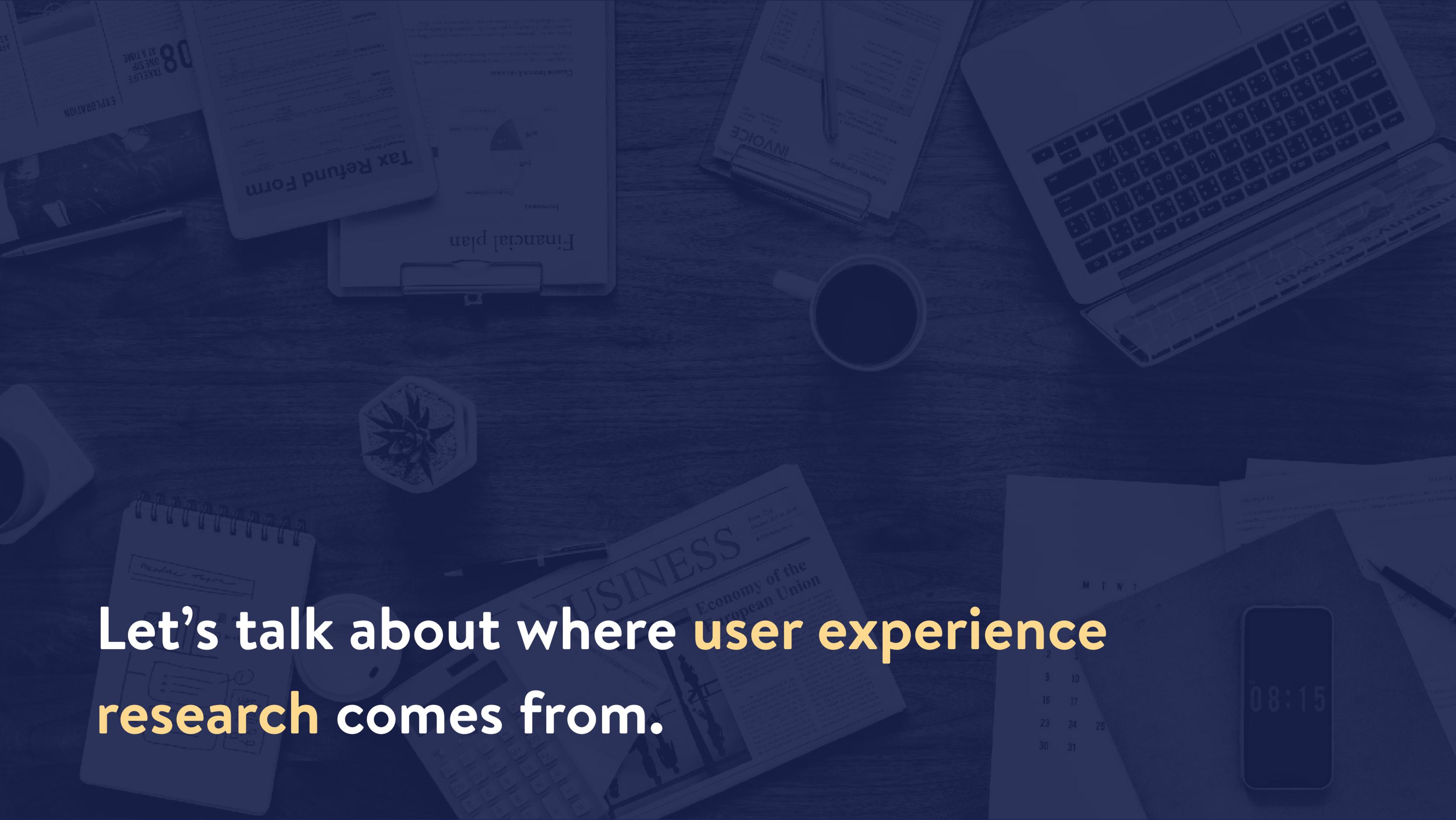
A few reasons...

- Because we have questions
- Because we want to test our assumptions
- Because we've noted things that require us to gather more context
- Because we want to build empathy
- **Because we want to make things better**



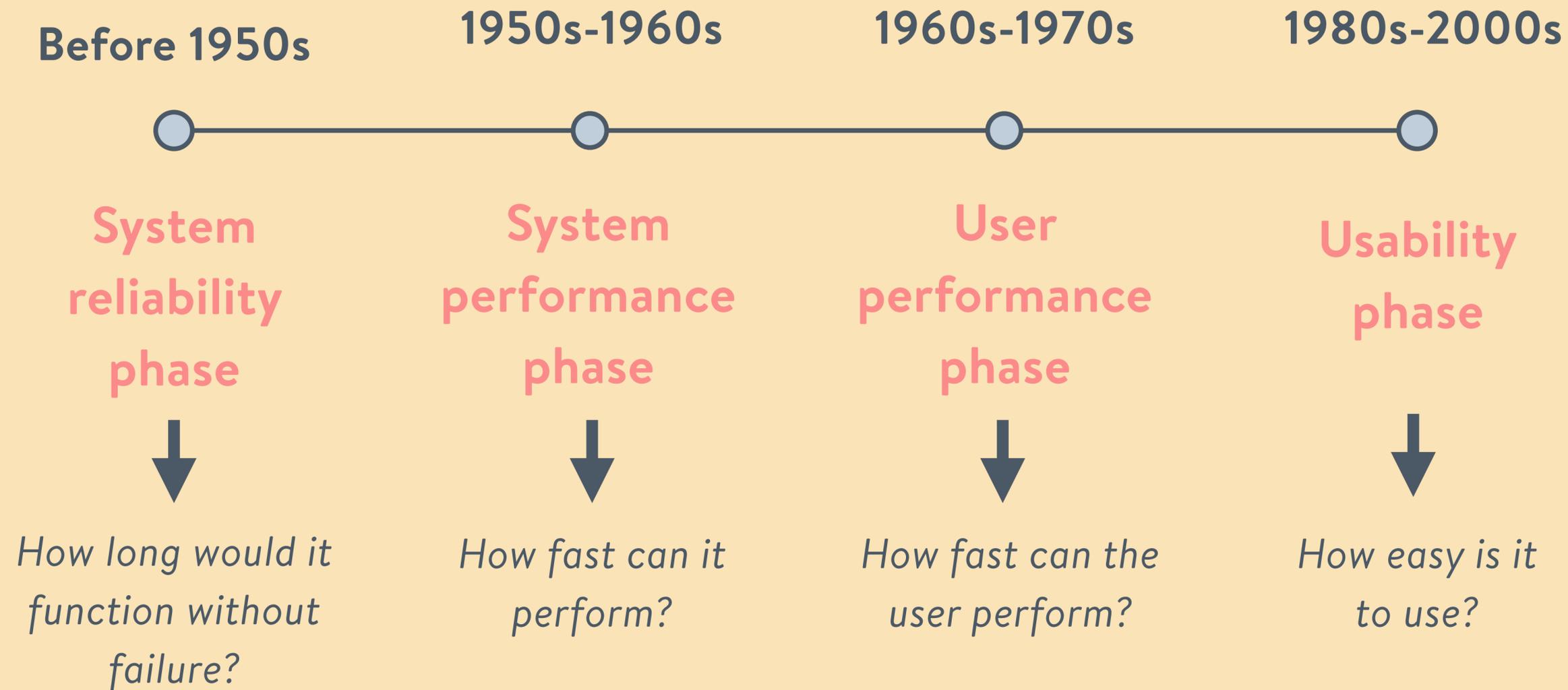
There's no such thing as “**user research school**”.

If you're **curious about people**, and you want to **make sense of things** (and you're taking this class), you're already on the right path.



Let's talk about where **user experience research** comes from.

A brief historical overview of user research...



How do we evaluate usability?

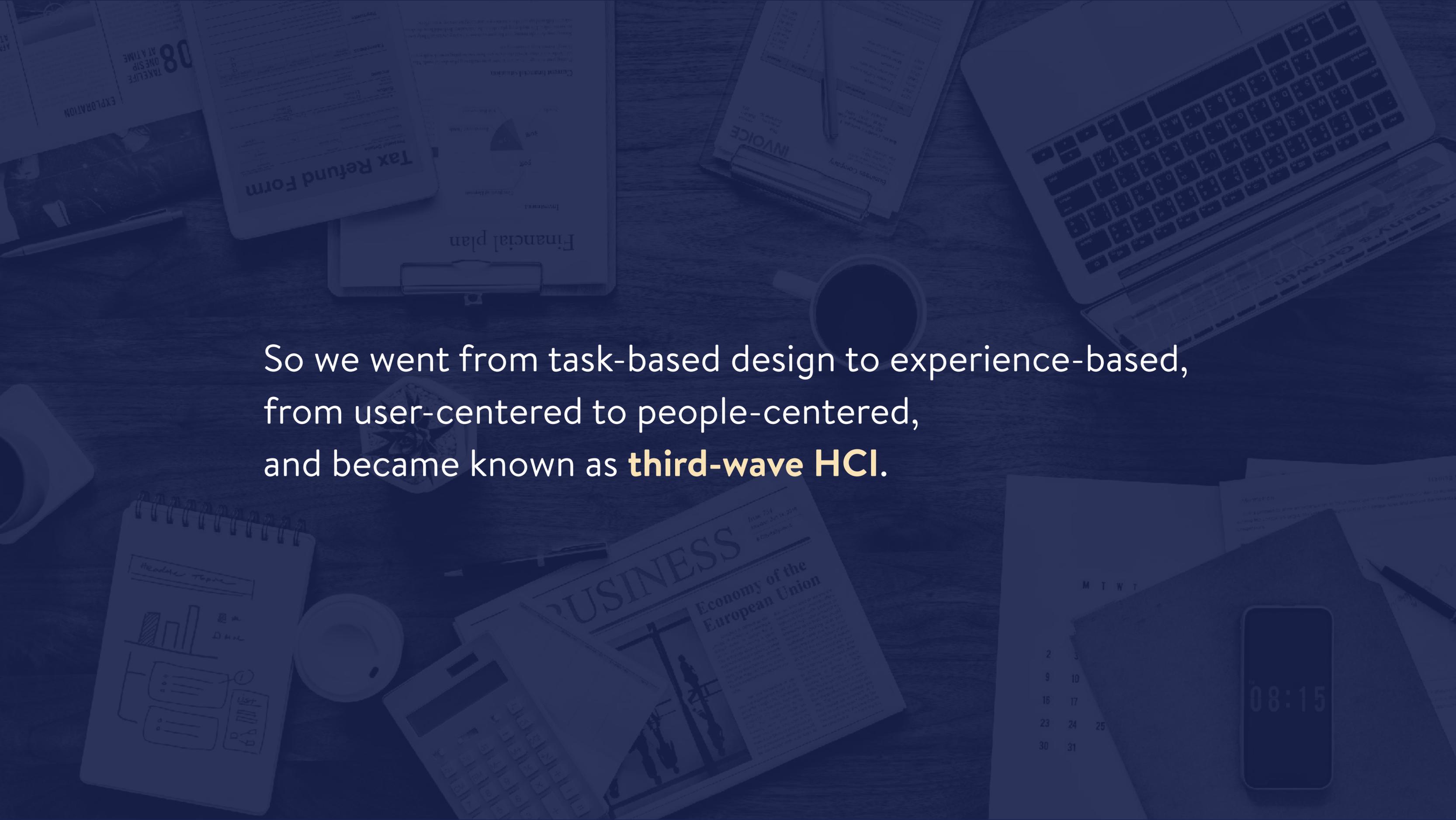
Give your target users a series of repeatable tasks, then measure:

- Time to complete
- Task completion rate
- Accuracy
- Error rate
- Satisfaction



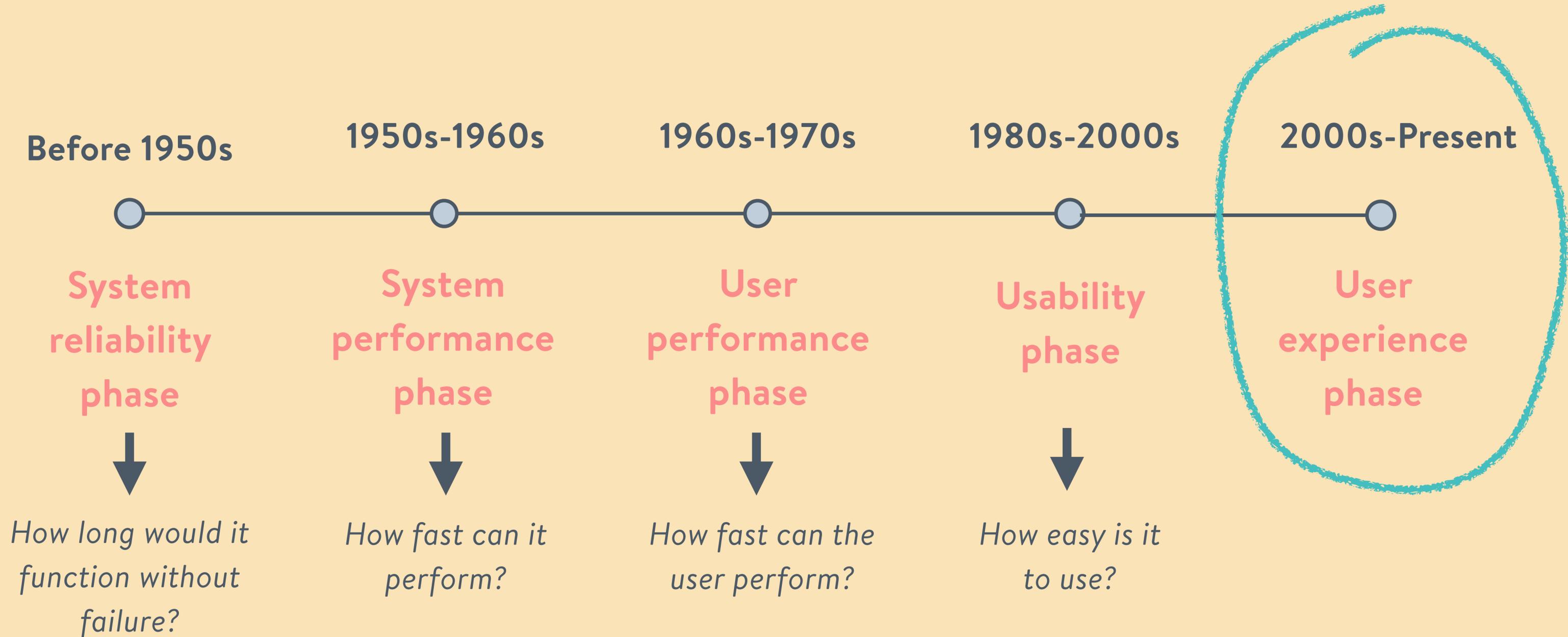
“What of technology not for accomplishing tasks but for **having experiences**, for **expressing one’s identity**, for **flirting** and **arguing** and **living**?”

MacDonald and Atwood, 2013



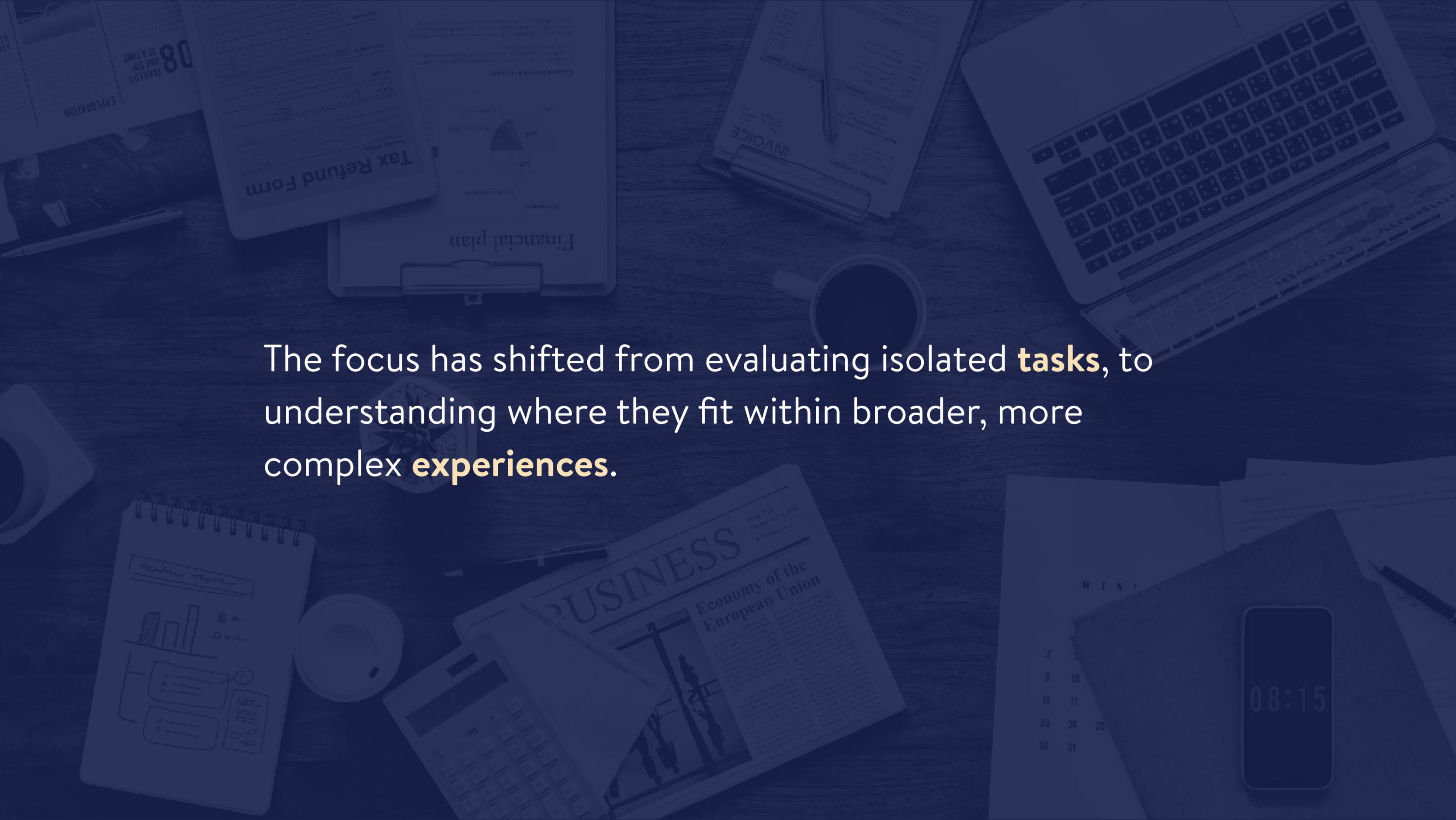
So we went from task-based design to experience-based,
from user-centered to people-centered,
and became known as **third-wave HCI**.

A brief historical overview of user research...



The 'user experience' era

- Personal, social, cloud, mobile computing
- Contexts are broader
- Technology is more pervasive
- Shift from the utilitarian/pragmatic to the emotional/affective

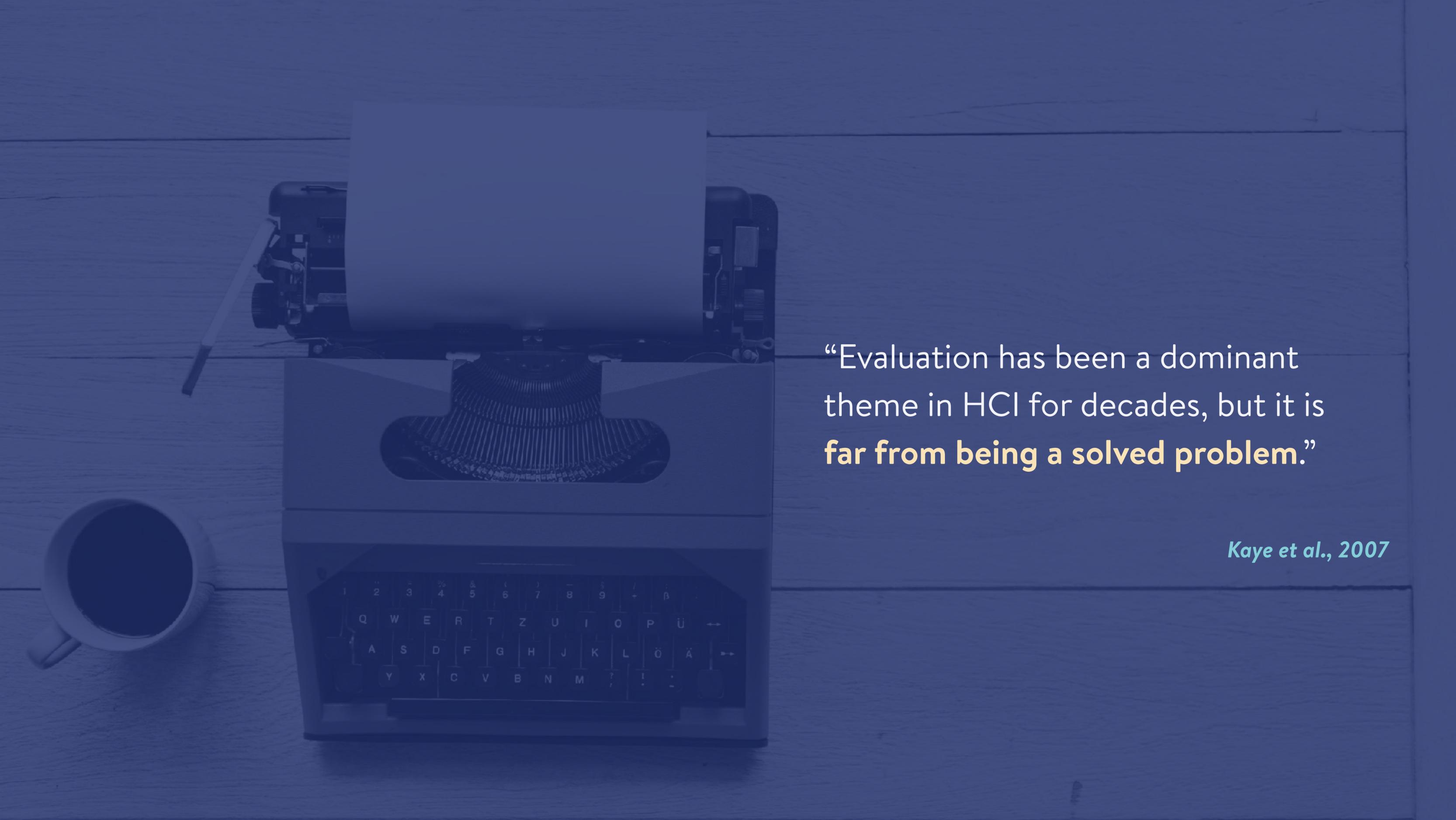


The focus has shifted from evaluating isolated **tasks**, to understanding where they fit within broader, more complex **experiences**.



But how do we measure all this?

We're really good at evaluating **tasks**, but less so **experiences**.



“Evaluation has been a dominant theme in HCI for decades, but it is **far from being a solved problem.**”

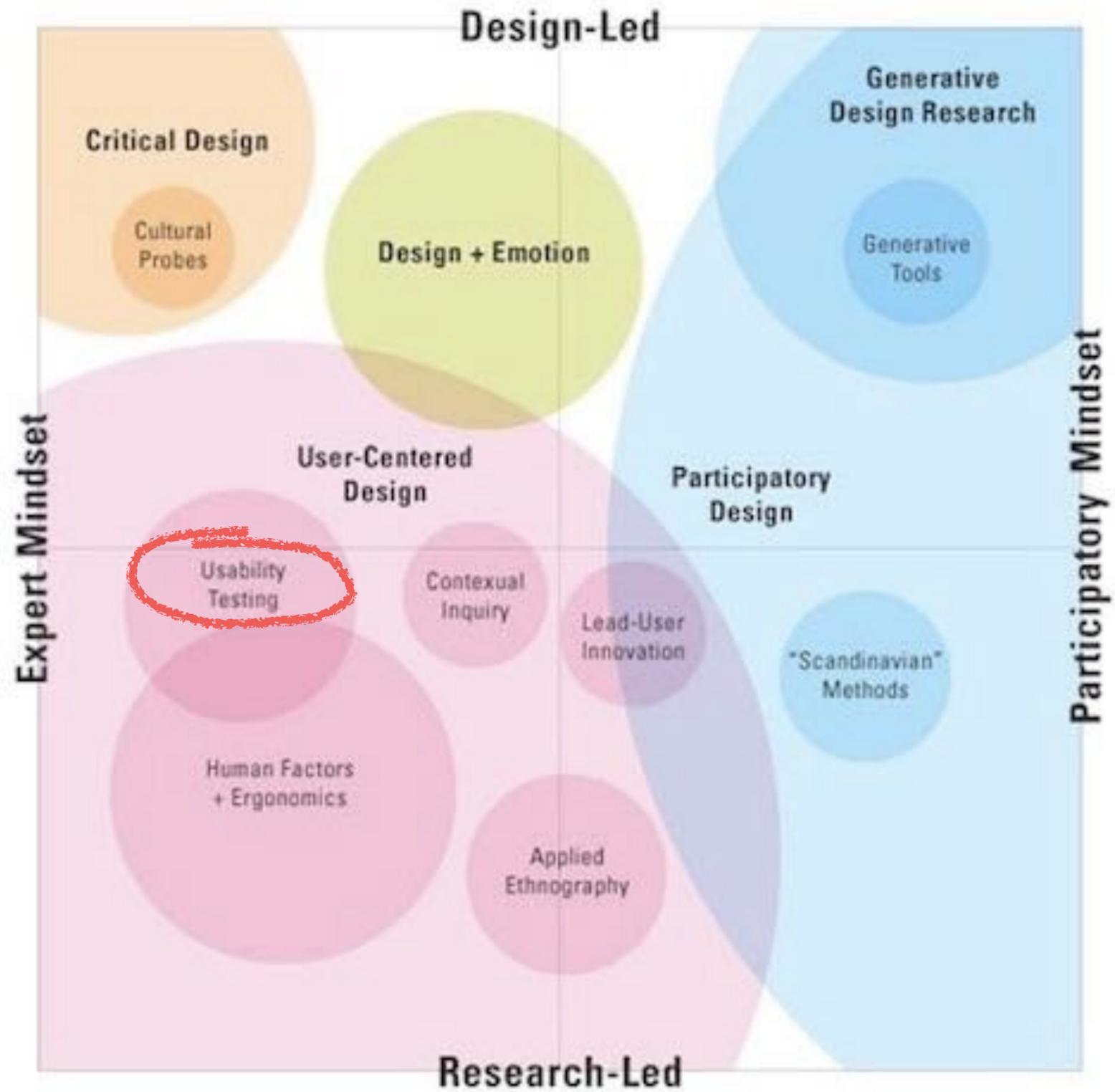
Kaye et al., 2007

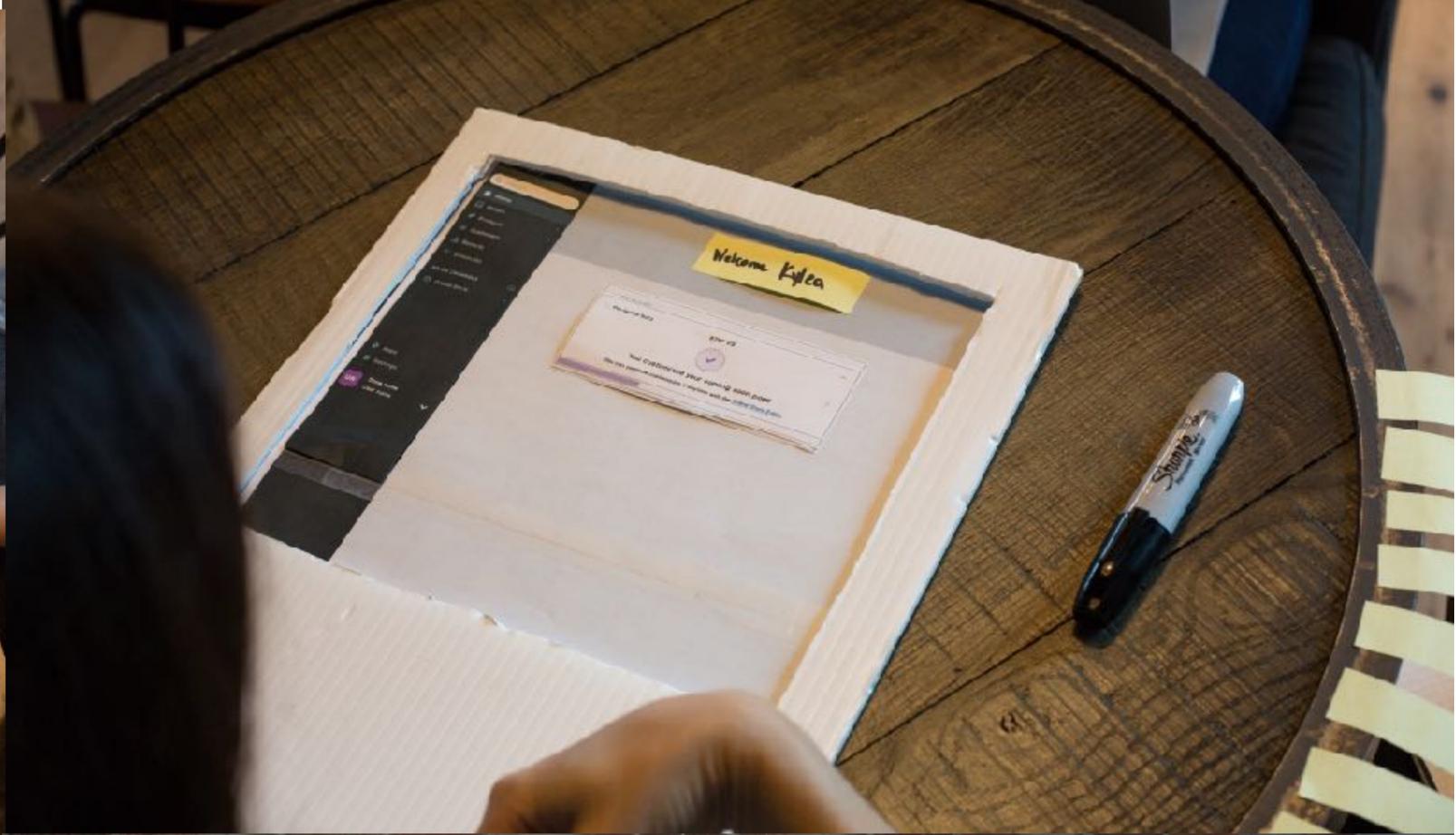
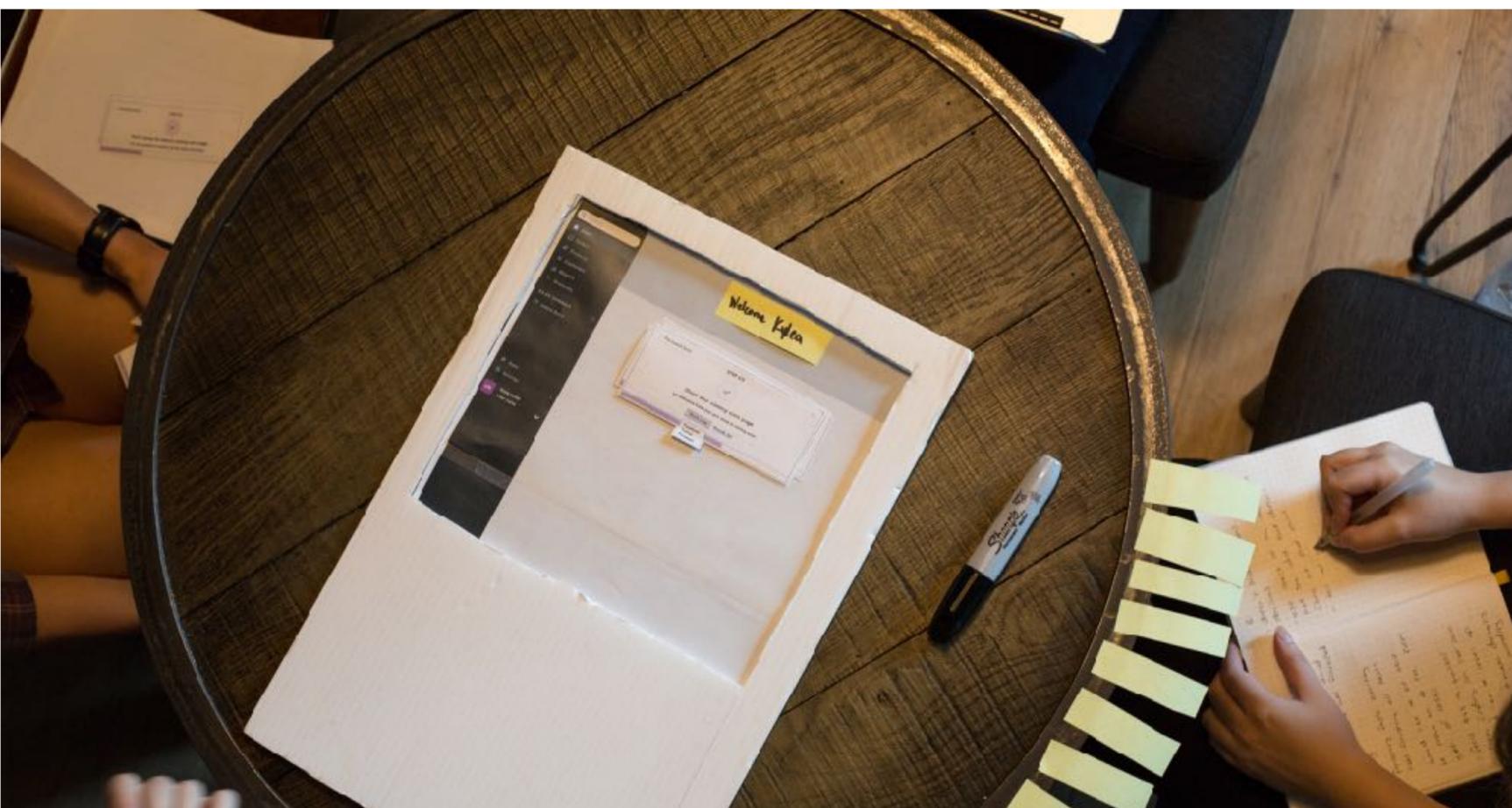


There is no “one size fits all” method.



Let's talk about **qualitative** research.









Journal study

Elyse's Shopify Journal

Welcome back Elyse, and thanks for taking the time to fill out your journal today!

* 1. How's your theme coming along?

- I'm still working on it.
- It's ready to go live on my store.

Next





b.cycle

ES
CES
&
JER
1920
1925

LOMA
A LOMA
875 29
000 62

VIZ
EDEL



Shoe
Chi

Shoppin' Cart



Décor

Décor &
Cie.



Red Velvet
Cupcake



\$2.75

\$10 gift card



Shopping Cart

Don't you just love cupcakes? Especially when they're on sale? Well, it just so happens your favourite pastry shop, Sweet Delights, is celebrating its 4-year anniversary by having a special promotion on their all-time favourite celebration flavour: a strawberry cupcake with chocolate icing. Hurry up and grab some of these delicious cupcakes for yourself!

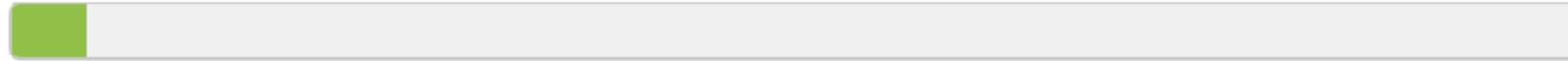
shopping cart:
chocolate cupcakes

1A

Dapper
Gents



Let's talk about **quantitative** research.



This is your chance to directly influence the upgrades we'll make to Shopify over this year. The more we understand what's important to you, the better we can develop solutions to help you make sales and grow your business.

This survey will only take about 10 minutes.

Complete the survey by Monday, January 16th for your chance to win a \$1,000 pre-paid Visa card.

*** 1. How would you describe yourself?** 

- Shopify store owner
- Working for a Shopify store owner
- Shopify partner or expert
- Previously owned a Shopify store
- Did the free trial but never launched my store

Next



REPORT PARAMETERS

Refresh

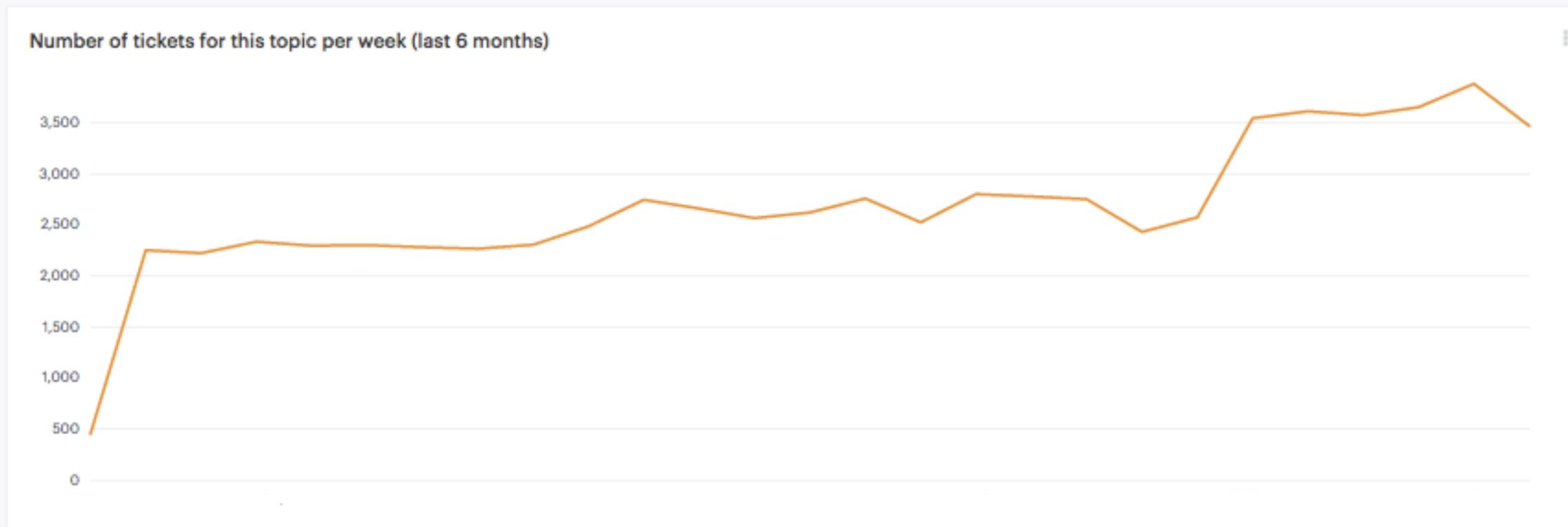
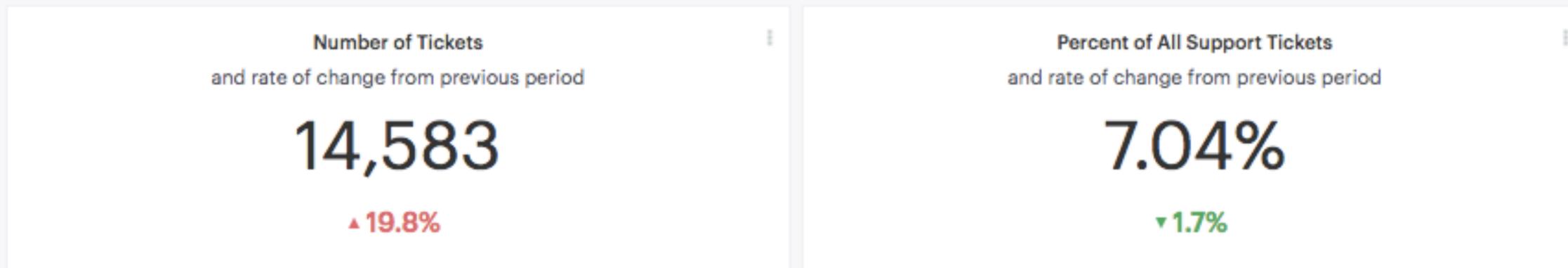
Date Interval

Last 4 weeks

Ticket Topic

Support Tickets Analysis

Number of support tickets for a chosen topic and period, with comparisons to an equal previous period, normalization by total number of customers, and as percentage of total support tickets.





Search reports & help

All Users
100.00% Sessions

+ Add Segment

Dashboards

Shortcuts

Intelligence Events

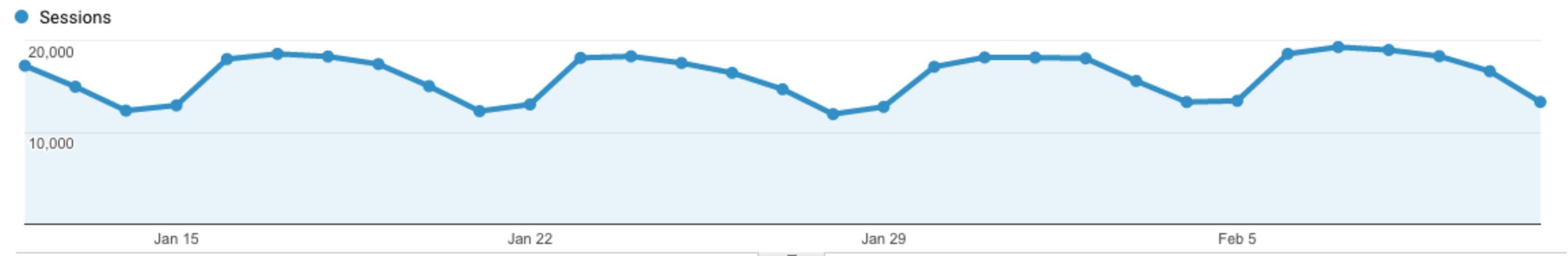
Real-Time

Audience

Overview

Sessions vs. Select a metric

Hourly Day Week Month



Overview

Active Users

Cohort Analysis **BETA**

User Explorer

Demographics

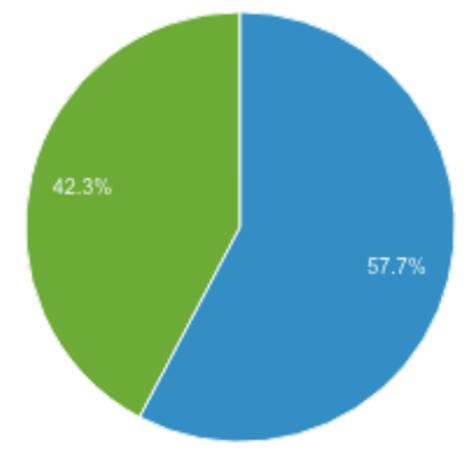
Interests

Geo

Behavior

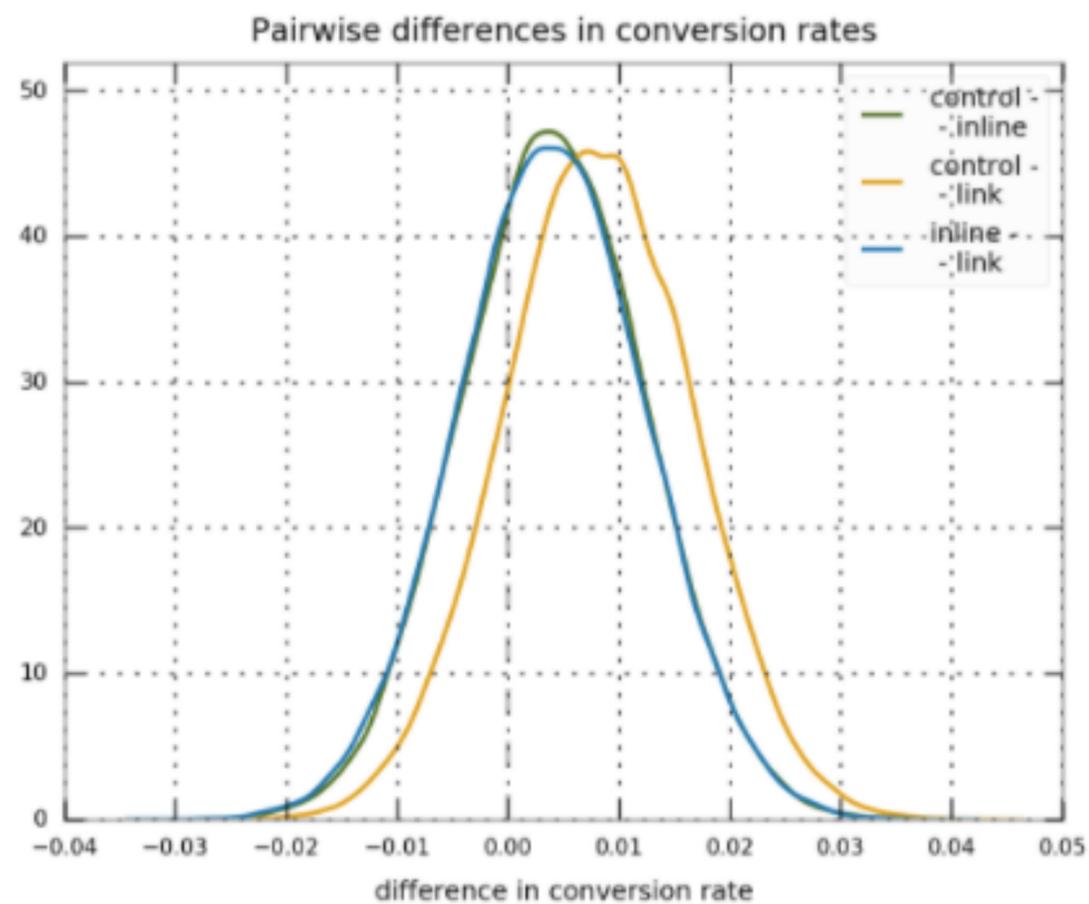
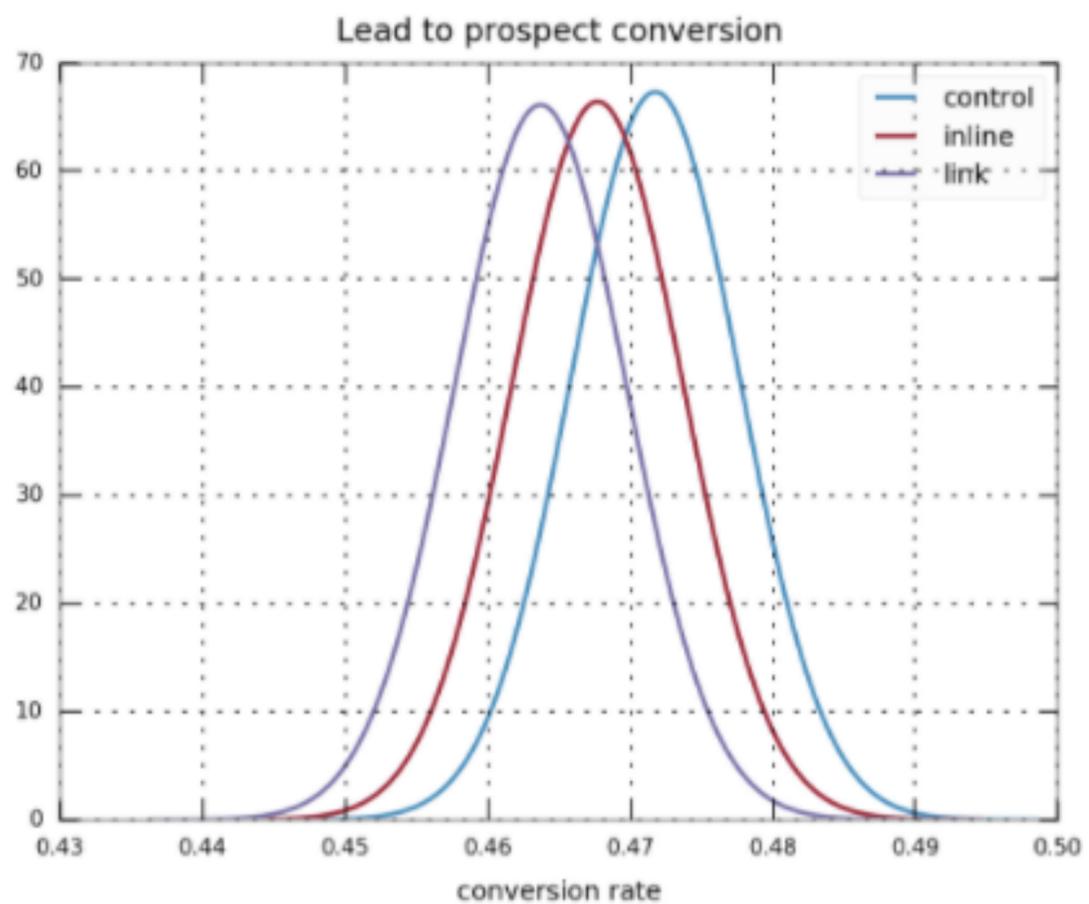
| | | | |
|--|------------------------------|---------------------------------|--------------------------------|
| Sessions 498,621 | Users 255,457 | Pageviews 3,147,725 | Pages / Session 6.31 |
| Avg. Session Duration 00:04:40 | Bounce Rate 30.86% | % New Sessions 42.16% | |

Returning Visitor New Visitor



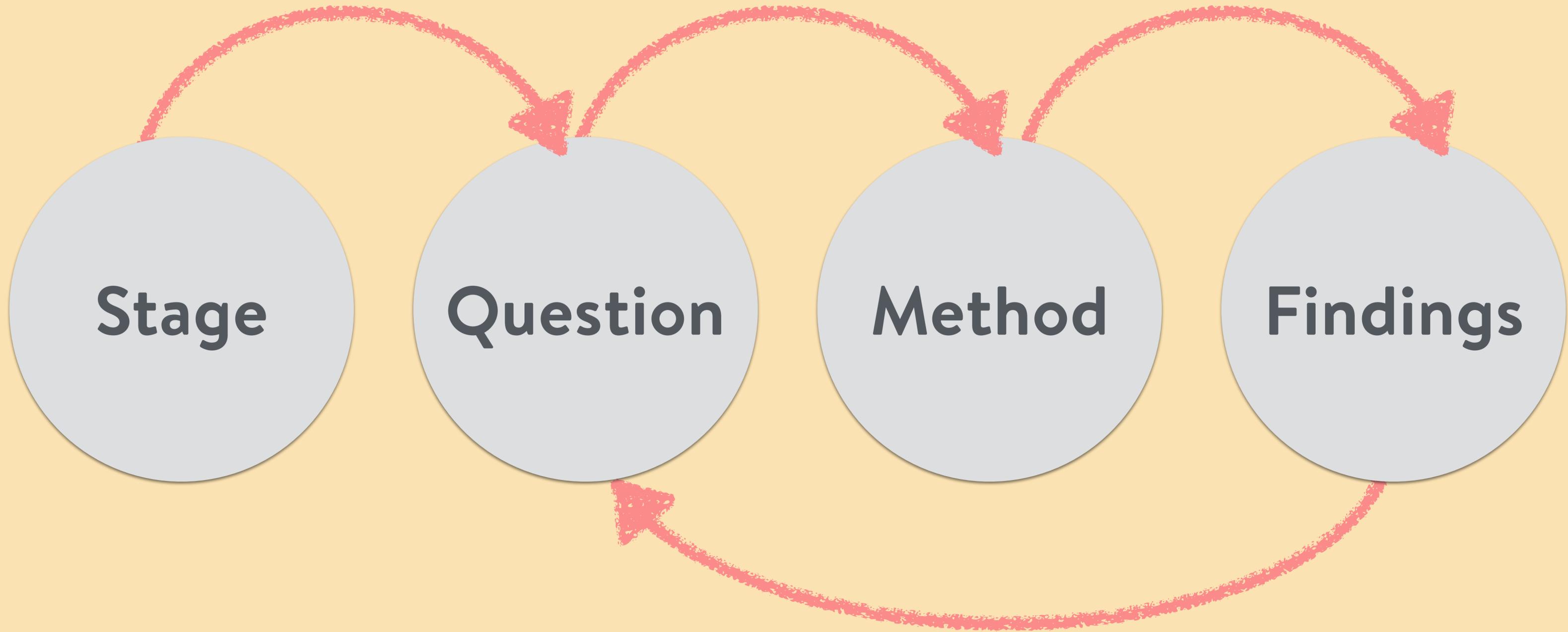
| Comparison | Confidence | Rel. Increase |
|-------------------------------------|------------|---------------|
| control converts higher than inline | 69% | -- |
| control converts higher than link | 83% | -- |
| inline converts higher than link | 68% | -- |

| Group | Conversion | Total | Observed rate |
|---------|------------|-------|---------------|
| control | 3,347 | 7,095 | 47.17% |
| inline | 3,227 | 6,900 | 46.77% |
| link | 3,167 | 6,830 | 46.37% |





So how do we choose
the **right method?**



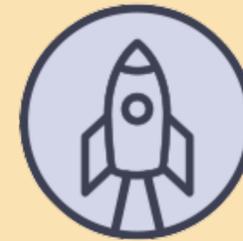
Stage

Question

Method

Findings

Getting shit done



Getting shit done



Idea

Gather initial thoughts on problem and impact of solving it



Think

Become experts of the problem domain, both internally and externally



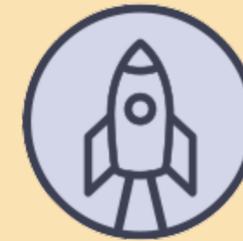
Explore

Plan how the problem will be solved, explore and evaluate various solutions



Build

Iteratively build and ship small, quality components of the solution



Launch

Publicly release the solution to users



Tweak

Iterate on the solution based on user feedback and usage

Getting shit done

Questions:

- What potential problems might we solve?
- How might we gather context on the problem?



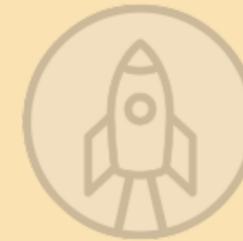
Idea

Qualitative:

- Looking at existing research (internal and external)
- Interviews, observations, surveys, diary studies to establish baseline of current problem
- Team kickoff workshop

Quantitative:

- Mining existing data for potential hypotheses or insights
- Establishing facts, confirming/disproving assumptions



Getting shit done

Questions:

- What are the root problems?
- What are the biggest challenges we might focus on?



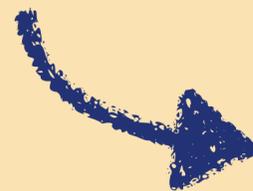
Think

Qualitative:

- Profiles/segments/personas to identify who might be impacted by the project
- More interviews and observations
- Workshops with users to further dive into the problem space
- Team workshops to explore and scope down the problems to be addressed

Quantitative:

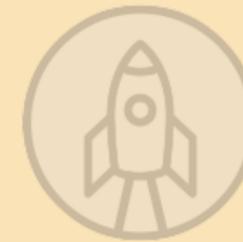
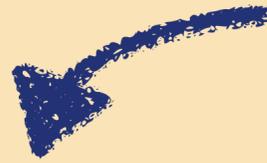
- Quantify how big are the segments that would benefit from this product



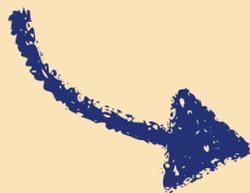
Getting shit done

Questions:

- How might we be resourceful and effective when testing assumptions and hypotheses?



Explore



Qualitative:

- Lo-fi prototype/clickable mockup testing

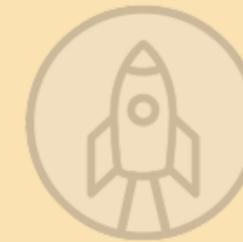
Quantitative:

- Define success metrics and measure baselines

Getting shit done

Questions:

- Can people use what we're building?
- Is what we're building addressing the initial problems and goals?



Build

Qualitative:

- High-fidelity usability tests
- Diary studies, beta testing

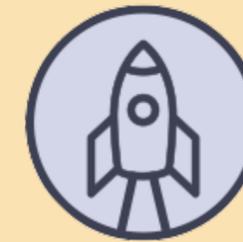
Quantitative:

- A/B tests, instrumentation, start building out reports

Getting shit done

Questions:

- Are people using it in the way we thought they would?
- Did we successfully solve the problem we identified?



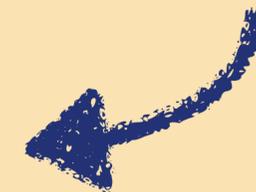
Launch

Qualitative:

- Forums/social media monitoring
- In-context feedback forms

Quantitative:

- Populate reports, monitor success metrics



Getting shit done

Questions:

- What incremental improvements might be worthwhile?
- What revisions should we make to our roadmap?



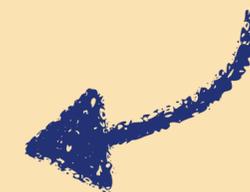
Qualitative:

- Retrospectives, post-mortem
- Analysis of support tickets
- Triangulate previous insights with quantitative data

Quantitative:

- A/B tests
- Monitor reports

Tweak



How questions change over time

Are we building
the right thing?

Are we building
the thing right?

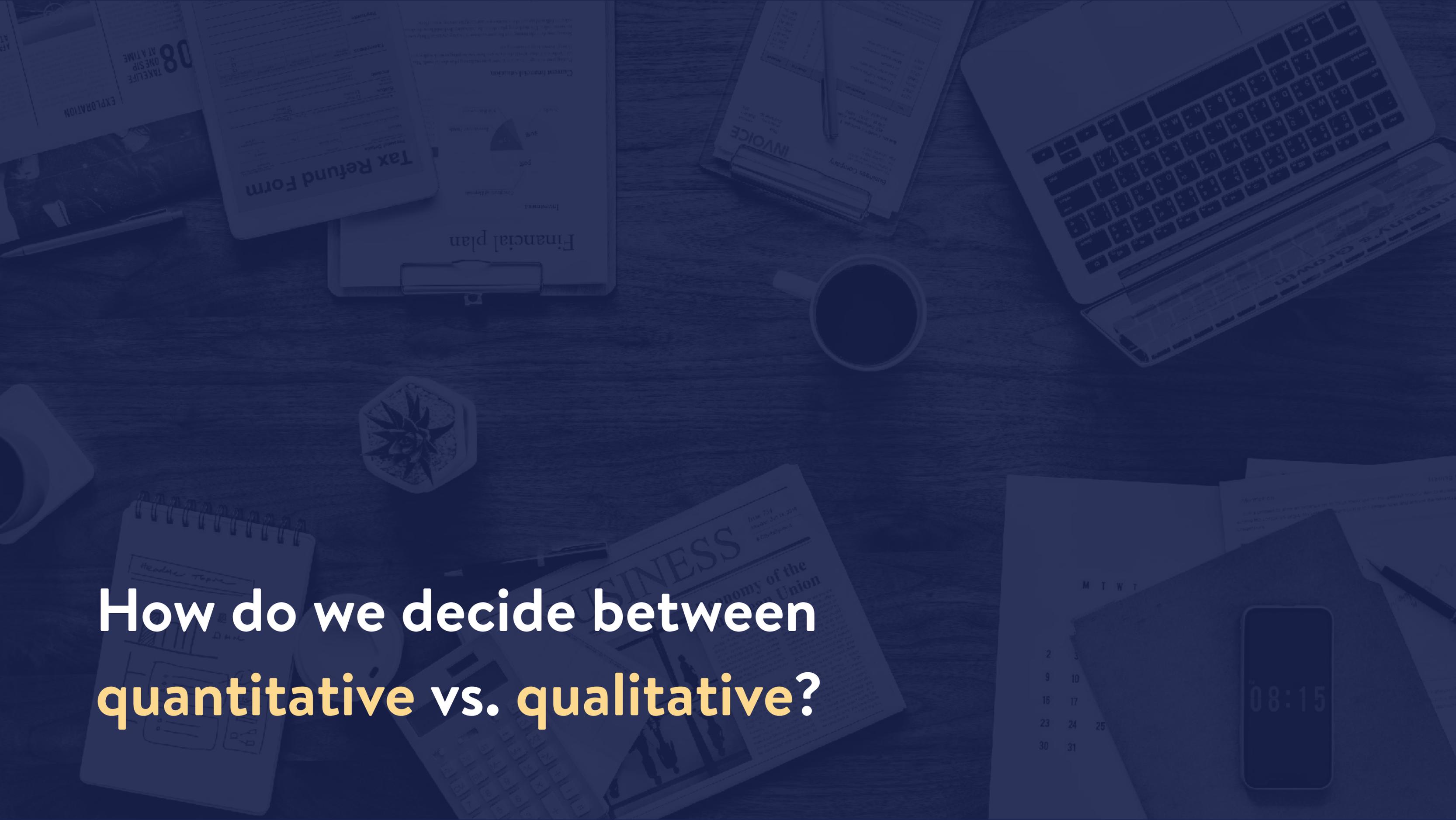


Inception



Completion

| Stage | Question | Qualitative | Quantitative |
|---------|---|--|---|
| Idea | What potential problems might we solve? | Existing research, observations, diaries, surveys, workshops | Establish facts, confirm/disprove assumptions |
| Think | What are the root problems? | Identify segments, interviews, observations, workshops | Quantify segments |
| Explore | How might we test assumptions | Lo-fi prototype/mockup testing | Define success metrics, measure baselines |
| Build | Can people use what we're building? | High-fidelity usability tests, diary studies, beta tests | A/B testing, instrumentation, reporting |
| Launch | Are people using it in the way we thought they would? | Forums/social media monitoring, feedback forms | Populate reports, monitor success metrics |
| Tweak | What improvements might be worthwhile? | Analysis of support tickets, retrospective, triangulate | A/B testing, monitor reports |



How do we decide between
quantitative vs. qualitative?



“Look for ‘Footprints’ of the Trouble Area: Now that we’ve **seen** it **in the wild**, we look for repeatable **patterns** that could happen in the analytics **data**. This data could tell us if **others** are experiencing the same issue.”

- *Jared Spool, Center Centre*

A vintage typewriter with a sheet of paper and a white mug on a wooden desk. The typewriter is the central focus, with a white sheet of paper inserted. To the left of the typewriter is a white mug. The background is a wooden surface. The text is overlaid on the right side of the image.

“**Triangulation** allows us to have greater confidence and **richer insights** than is possible to achieve through a single method alone. We aspire to form a **comprehensive** narrative of what we know about the current and future users of our products rather than methodologically siloed insights.”

- Sara Belt, Spotify

A vintage typewriter is the central focus, resting on a light-colored wooden desk. To its left is a white ceramic coffee cup. The entire scene is overlaid with a semi-transparent blue filter. The typewriter's keyboard is visible at the bottom, and a sheet of paper is partially inserted into the carriage. The background shows the natural grain of the wooden desk.

“Value to the user is **qualitative**. Value to the business is **quantitative**. In order to make **holistic decisions**, you have to create a representation that makes that **translation**.”

- Erika Hall, Mule Design

A vintage typewriter with a sheet of paper and a white mug on a wooden desk. The typewriter is dark-colored and has a keyboard with white keys. The mug is white and has a dark-colored interior. The background is a light-colored wooden surface.

“Integrating **big data** and **thick data** provides organizations a more **complete context** of any given situation. For businesses to form a **complete picture**, they need both big and thick data because each of them produce **different types of insights** at varying scales and depths.”

- *Tricia Wang, Sudden Compass*



When you combines **statistical trends** with **stories** and **personal experiences**, the collective strengths of both provides a **better understanding** of the research problem than either forms of data alone.



We call this **mixed methods** research.



“An approach to research in the social, behavioural, and health sciences in which the investigator gathers both **quantitative (close-ended)** and **qualitative (open-ended)** data, **integrates the two**, and then draws interpretations based on the **combined strengths of both** sets of data to understand research problems.”

- John Creswell, University of Michigan

Strengths

Weaknesses

Qualitative

Provides detailed perspectives
Captures the voices of the participants
Captures complex phenomena
Adapts to context
Is largely participant-driven
Appeals to people's enjoyment of stories

Is time-intensive when it comes to data collection and analysis
Studies few people
Has limited generalizability
Loses scale
Is subject to the researcher's biases

Quantitative

Is relatively efficient when it comes to data collection and analysis
Draws conclusions for large numbers of people
Investigates relationships within data
Appeals to people's preference for numbers

Does not record the words of the participants
Is impersonal
Provides limited understanding of the context of participants
Loses resolution
Is largely researcher-driven

Three mixed methods designs

1

Convergent
design

2

Explanatory
sequential
design

3

Exploratory
sequential
design

Convergent design



Study large numbers
of people



Captured detailed
perspectives
and complex phenomena



Explanatory sequential design

Discover patterns
for large numbers
of people

Enrich them with
details and context



Exploratory sequential design

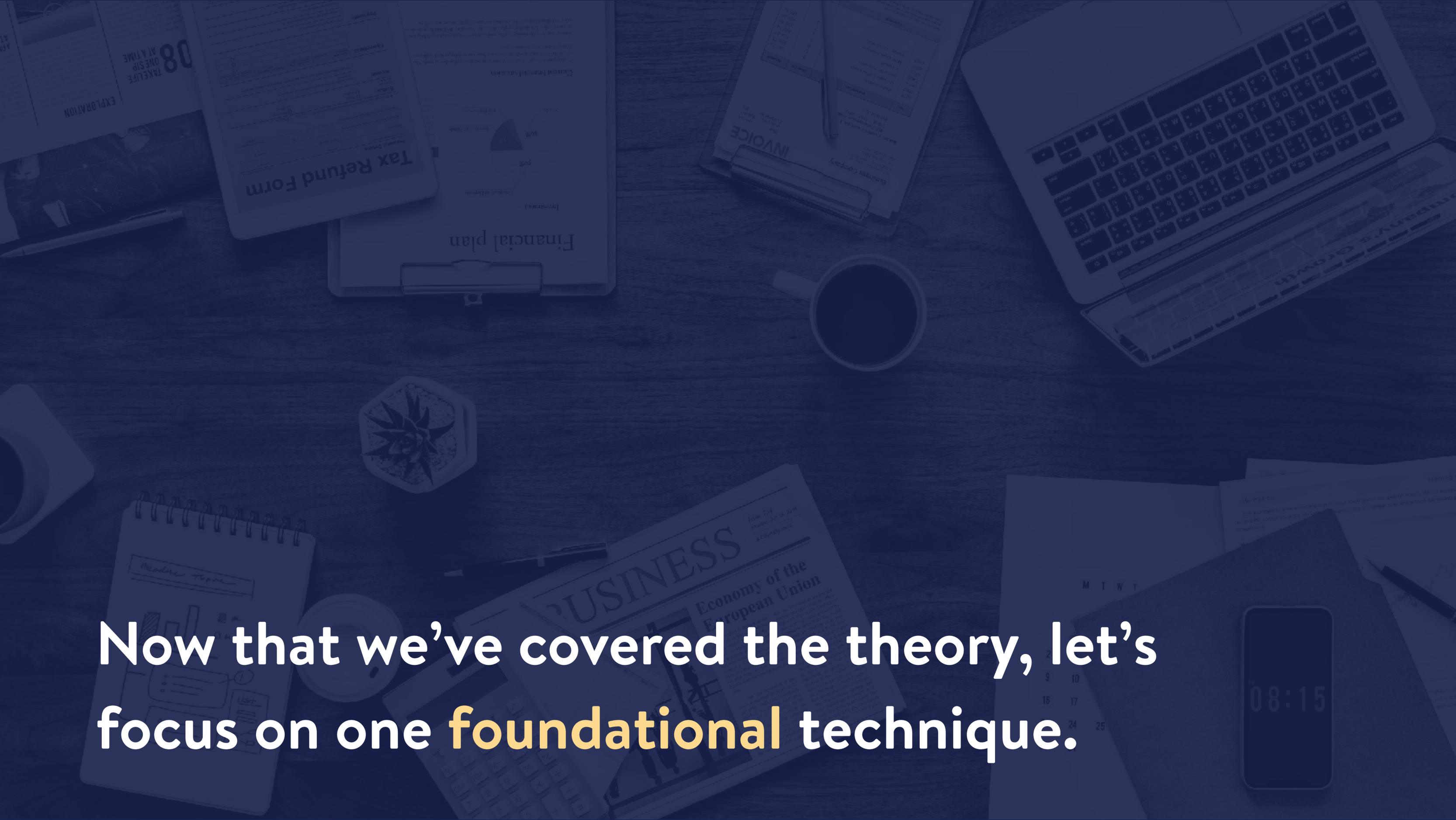
Capture the stories
of few

Draw conclusions
for large samples



IMPORTANT DISCLAIMER:

Very few people are equally skilled at both qualitative and quantitative. The real power lays in understanding enough about **both types** of methods, and their respective **strengths** and **weaknesses**, to be able to have **informed** conversations and forge **collaborations**.



Now that we've covered the theory, let's focus on one **foundational** technique.

The user interview.



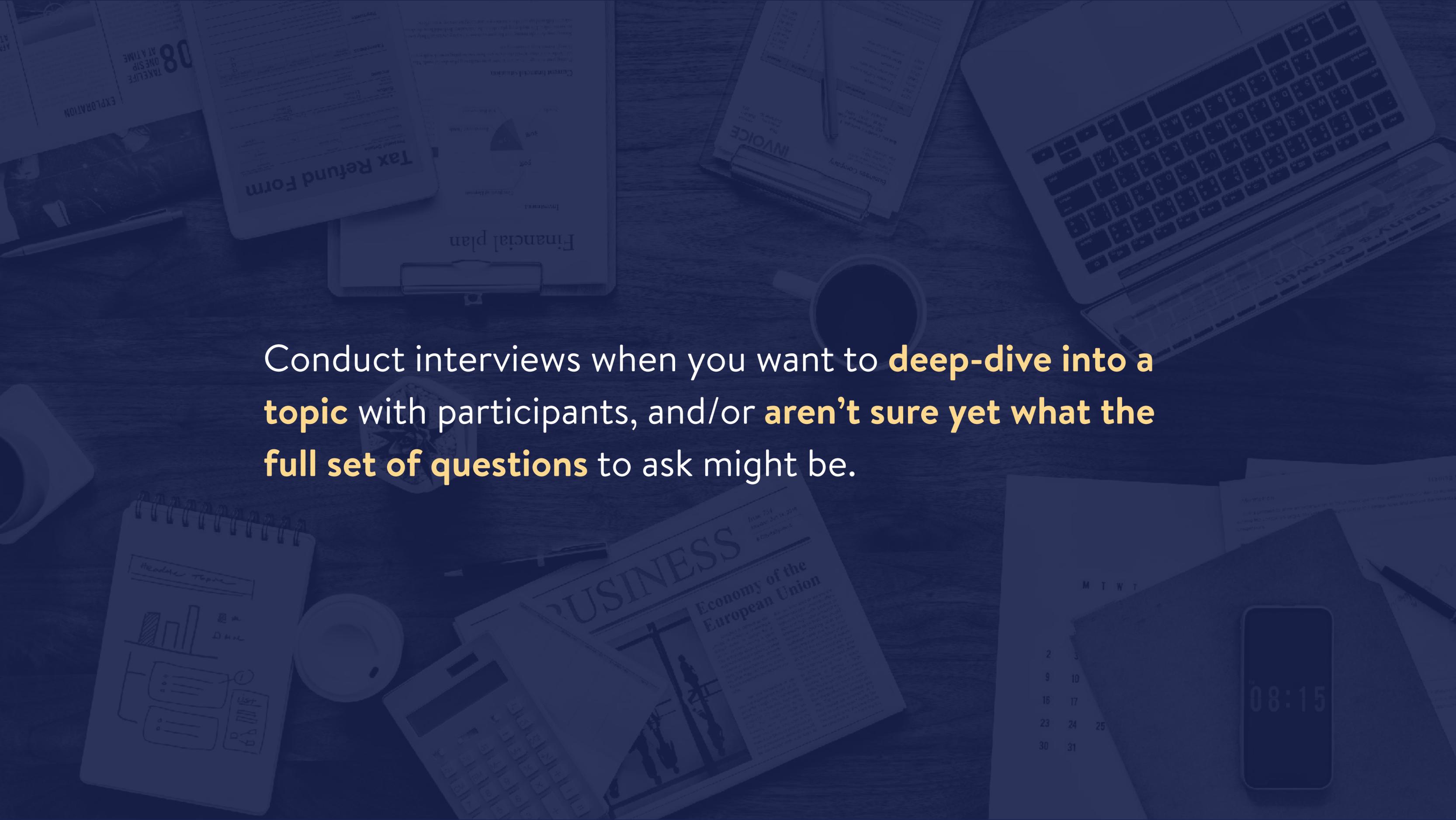
About interviews

Pros:

- You get to really deep-dive into a topic with participants
- They can evolve as you learn
- A good interview can be very engaging for your participants
- You can learn and share stories
- Sharing audio or video snippets can be really powerful

Cons:

- They are time-consuming to recruit for
- They are time-consuming to conduct
- They are time-consuming to analyze
- You can only speak to small sample set
- Making the results generalizable can be tricky



Conduct interviews when you want to **deep-dive into a topic** with participants, and/or **aren't sure yet what the full set of questions** to ask might be.

Interviewing task

Interviewing isn't natural

- It goes against how we've been trained to behave socially
- It requires us to set our personalities aside
- It means we actually have to listen to other people
- **But there are certain skills that can help us do all this**

During an interview, we want to:

- Ask open questions
- Ask non-leading questions
- Remain neutral

Asking open questions

Don't... ask lots of closed questions

- 'Do you do this OR that?'
- 'Is this important to you?'

Do... encourage participants to tell 'stories'

- 'Tell me about the last time you...'
- 'What do you think about...'

Asking non-leading questions

Don't... put words in their mouth or suggest answers

- ‘How annoying do you find this thing?’
- ‘As a  do you think it's easy to use?’

Do... allow them to experience and reflect back to you in their own words

- ‘Tell me your thoughts on...’
- ‘How have you found doing [this thing]?’

Remaining neutral

Don't... agree too much

- 'Yes that's great'
- 'Well done'

Do... show with your eyes that you understand and keep conversation-encouragers simple

- 'Mm hmm'
- 'Okay'
- 'Fair enough'



Don't assume understanding

Don't... interrogate (think of your tone)

- 'Do you really think that?'
- 'Are you sure?'

Do... explore their meaning of their responses (technique called laddering)

- 'Tell me more about that...'
- 'Why?'

Fun fact!

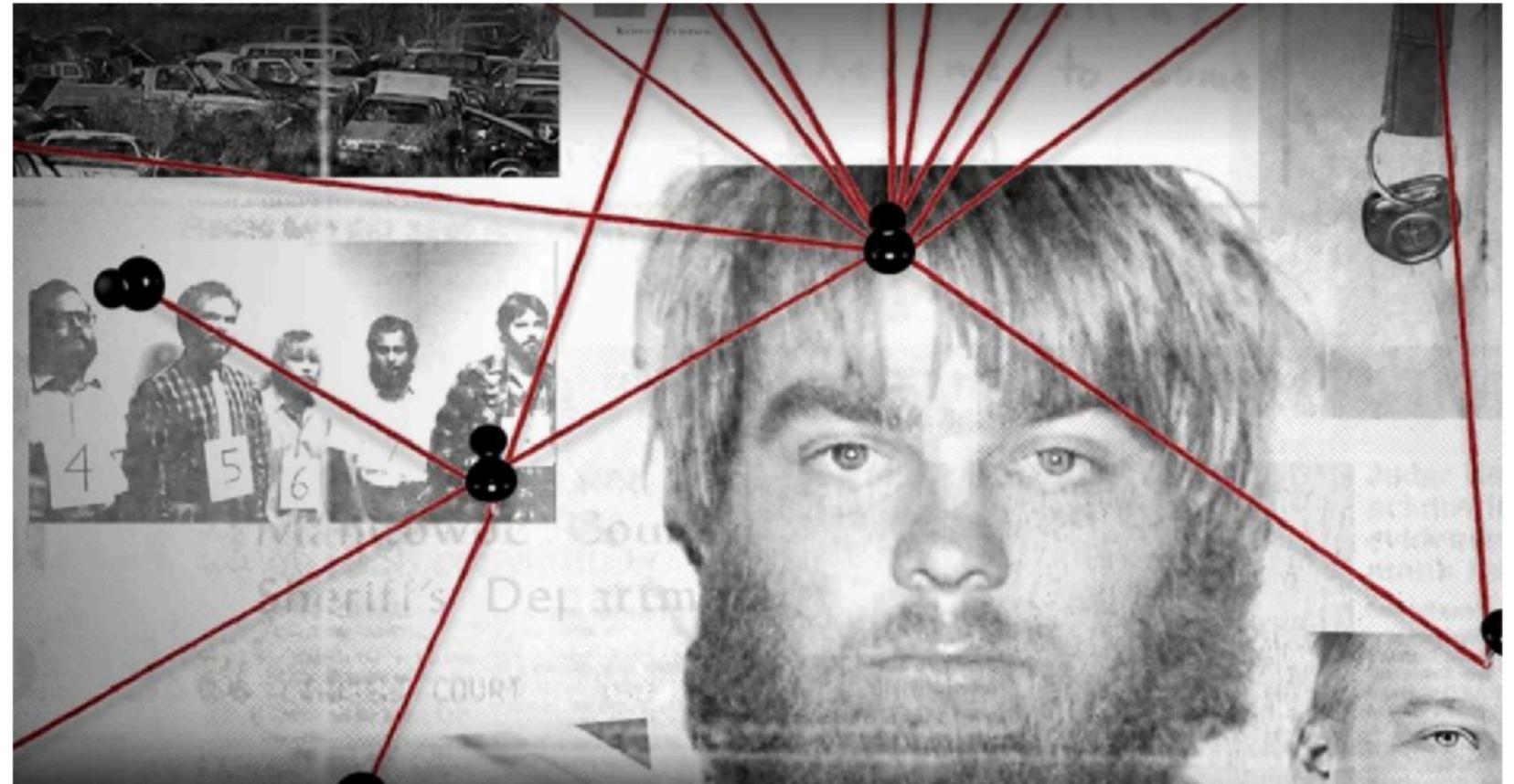
Why do bad interviewing techniques seem so familiar?



Alëna louguina

Senior UX Research Lead @shopify. Systems + industrial designer. Currently writing a book 'Systems: From Biology to Design'. I like bugs 🐛

Jan 13, 2016 · 5 min read



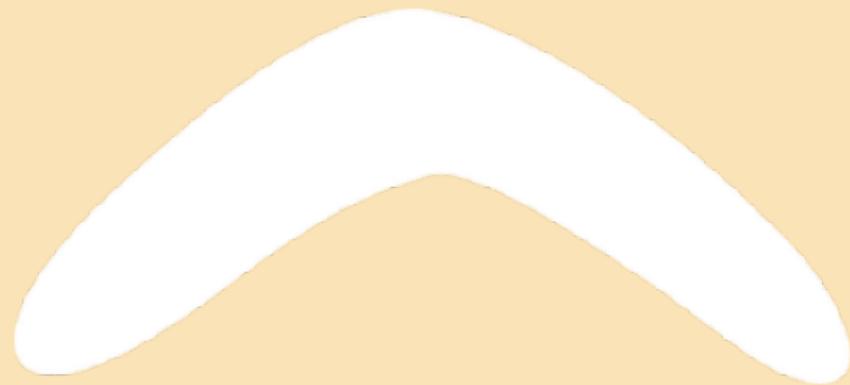
Making a Murderer: Lessons for UX Research

<https://ux.shopify.com/making-a-murderer-lessons-for-ux-research-fb1ade501c26>

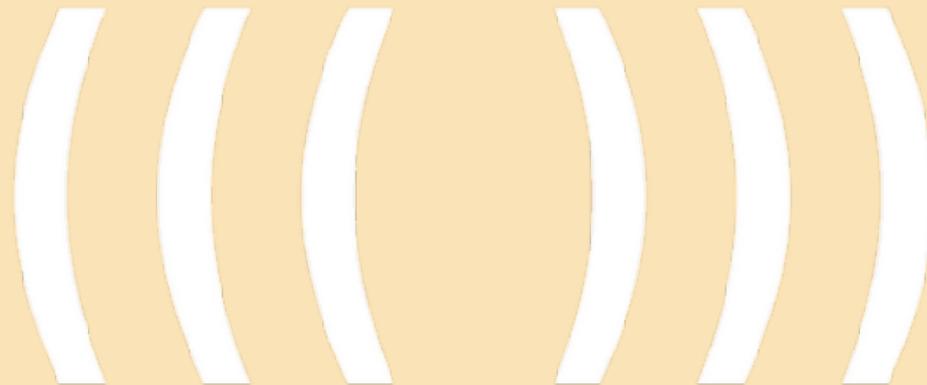
Transcript task

A few insider interview techniques

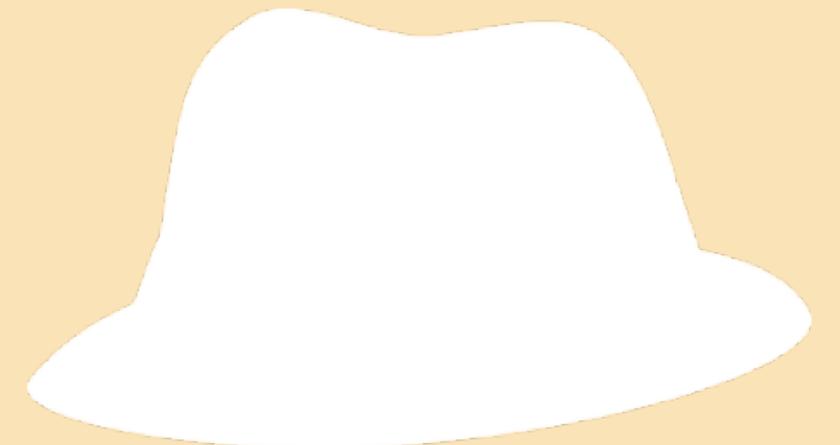
Boomerang



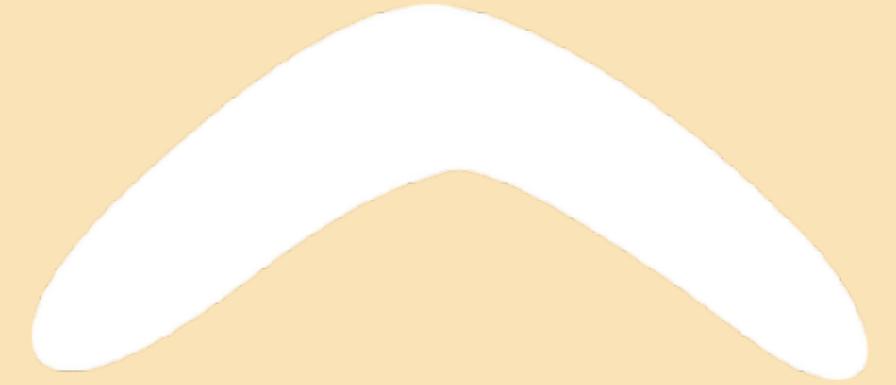
Echo



Columbo



Boomerang - Think like a politician!

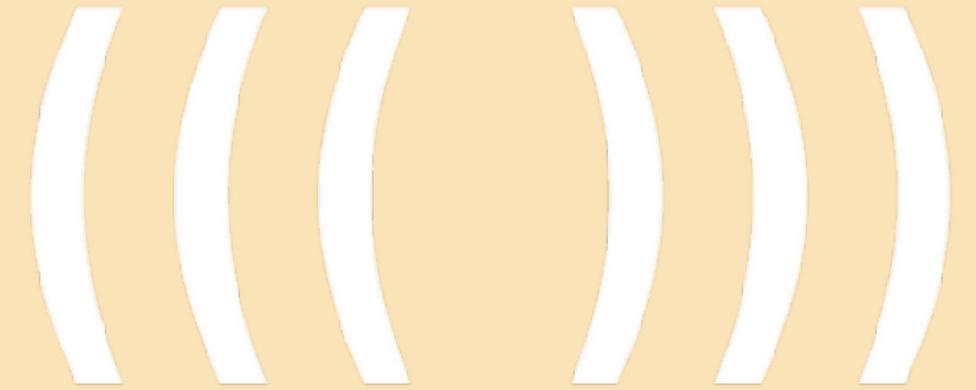


The facilitator formulates a generic, non-threatening question that they can use to push the participant's question or comment back to them.

Participant: 'Is the point of Shopify to help me start a business?'

Facilitator: 'What do *you* think is the point of Shopify?' or 'What would you want to get out of using Shopify?'

Echo

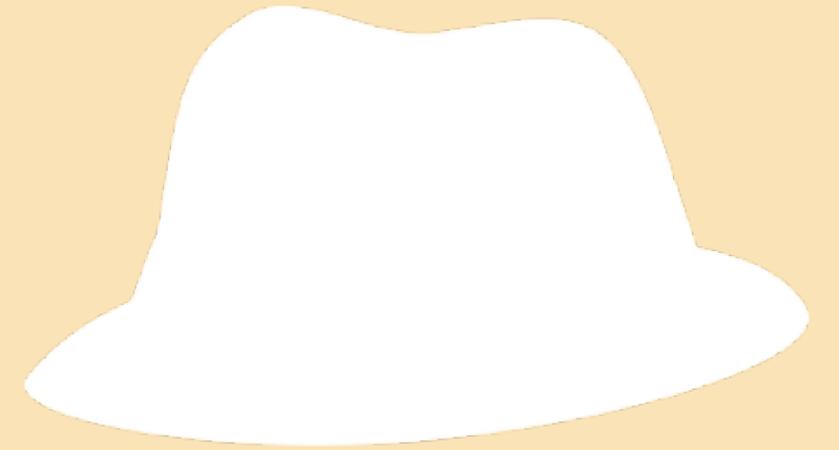


The facilitator repeats the last phrase or word the user said, while using a slight investigative tone

Participant: ‘This list of Shopify features is strange, I’m not sure what...’

Facilitator: ‘List is strange?’ or ‘Not sure what...?’

Columbo



The facilitator is trying to craft tasks and questions in a way that coaxes people into saying what they think and into doing what comes naturally.

Participant: ‘umm do I need to have a credit card to sign up for Shopify?’

Facilitator: ‘...you are wondering if [pause] you need [pause]...?’

Playing dumb works to your advantage

It gives room for your participant to be the expert



Dalia El-Shimy

Senior UX Researcher @Shopify, human woman, <insert random quirky fact here>.

Oct 4, 2016 · 4 min read

The privilege of asking questions

And what that means for UX researchers

<https://ux.shopify.com/the-privilege-of-asking-questions-9870c7ba9810>

Bonus skill!

Probably THE MOST important of all:

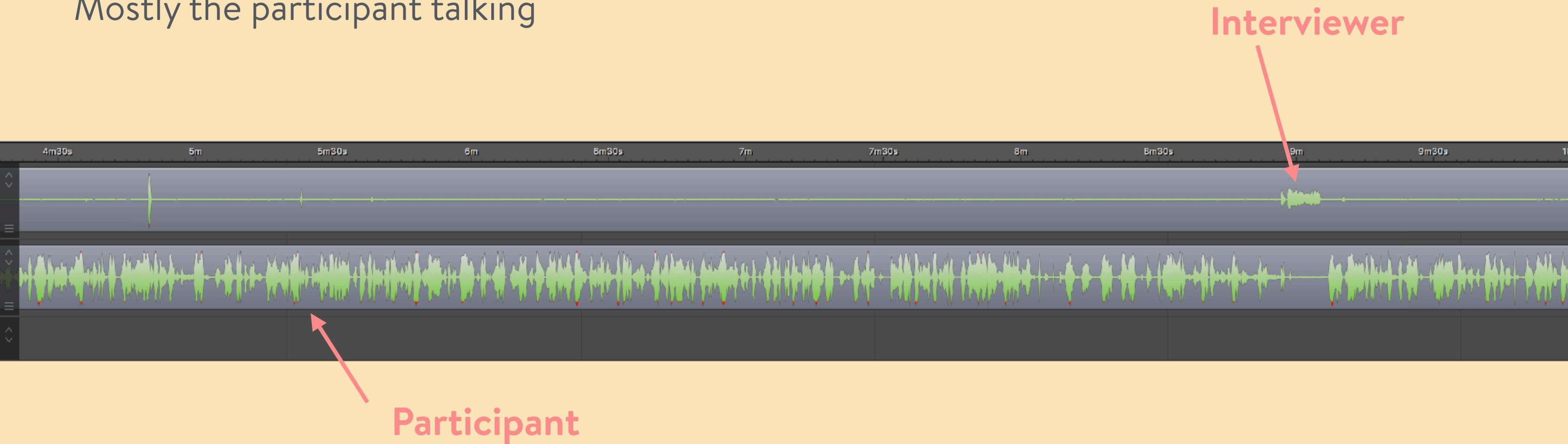
SILENCE!

- When you're done asking your (clear, concise) question, pause
- When the participant is done answering the question, pause, in case they have more to say



What an ideal session looks like

Mostly the participant talking



Tips for conducting an interview

- Shut up
- Ask open, non-leading questions
- Remain neutral
- Insider techniques: Boomerang, Echo, Columbo
- Play dumb, don't be an expert

Deciding on your tech setup

- How are you going to record the interview? (audio/video/notetaker)
- Are you doing this in person or remote?
- Should other people from your team be able to sit in on the interview?
- **What is the least friction for the participant?**



So now you know a bunch of **stuff**.

What next?

- Think about the research questions you're trying to answer
- Decide on a method accordingly
- Understand ahead of time what can be changed as a result of this research
 - Make sure everyone understands why the research is being conducted
 - Make sure they understand what might change as a result of this research
 - Agree with your team on what you will do based on the findings
 - Do this before conducting research, not after
- Go forth and research!

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Thank you!

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