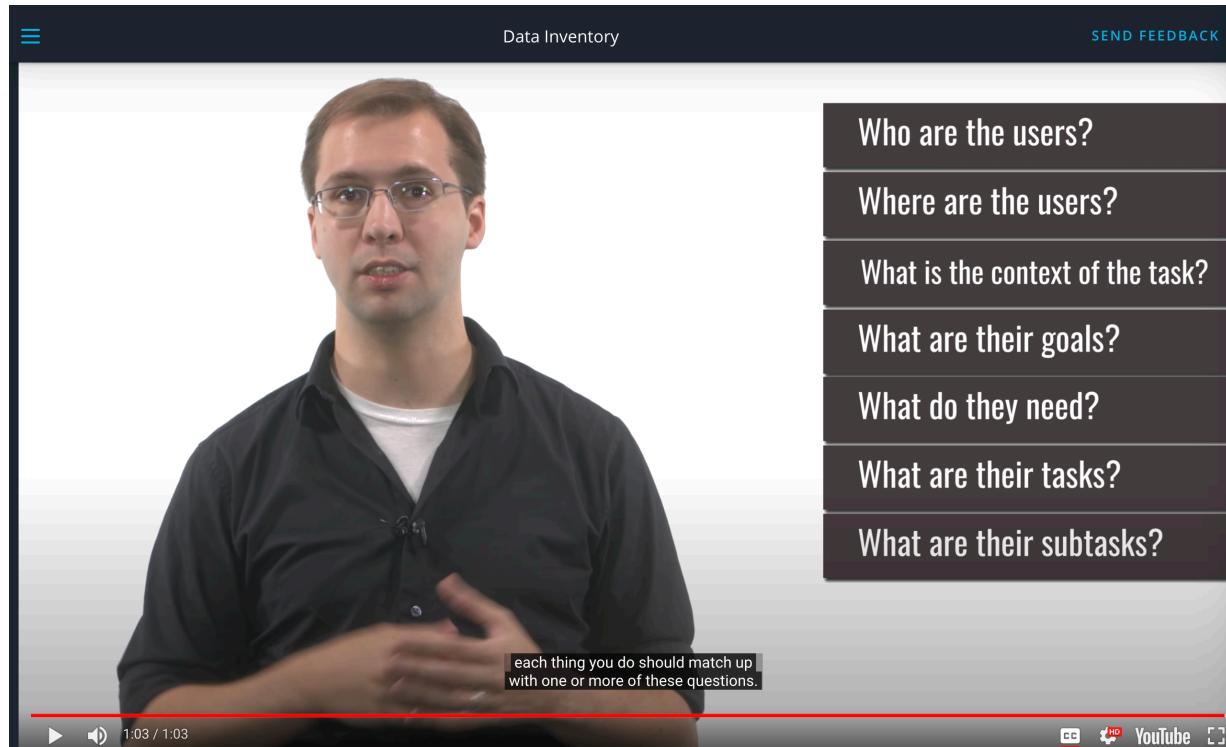


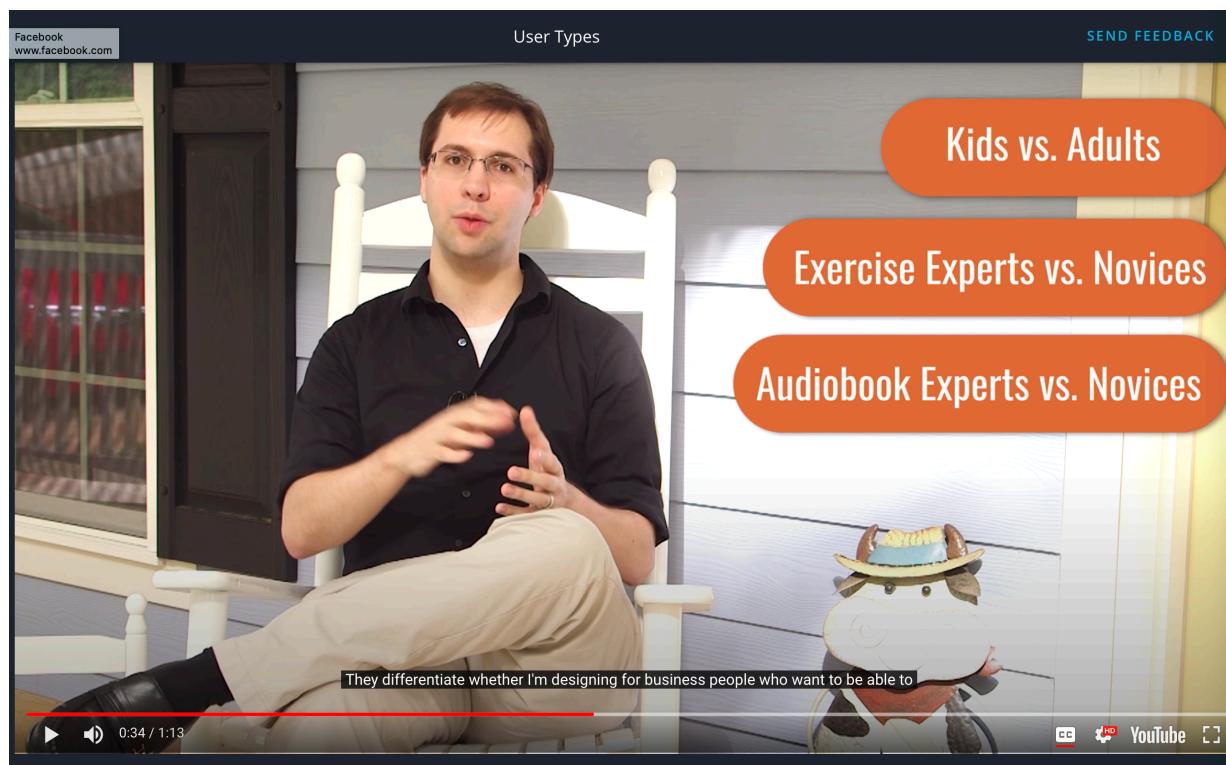
# HCI



A video thumbnail for a 'Data Inventory' session. On the left, a man with glasses and a black shirt is speaking. On the right, a vertical list of questions is displayed in white text on a dark background:

- Who are the users?
- Where are the users?
- What is the context of the task?
- What are their goals?
- What do they need?
- What are their tasks?
- What are their subtasks?

At the bottom of the video frame, a subtitle reads: "each thing you do should match up with one or more of these questions." The video player interface shows a progress bar at 1:03 / 1:03, and standard video controls (play, volume, etc.) are visible.



A video thumbnail for a 'User Types' session. On the left, a man with glasses and a black shirt is speaking. On the right, three orange speech bubbles contain the following text:

- Kids vs. Adults
- Exercise Experts vs. Novices
- Audiobook Experts vs. Novices

At the bottom of the video frame, a subtitle reads: "They differentiate whether I'm designing for business people who want to be able to". The video player interface shows a progress bar at 0:34 / 1:13, and standard video controls (play, volume, etc.) are visible.



1. Confirmation bias

2. Observer bias

3. Social desirability bias

4. Voluntary response bias

5. Recall bias



Now, these biases can be largely controlled also

▶ 🔍 2:22 / 2:26

CC HD YouTube



us to understand the users  
need is to simply watch.

▶ 🔍 0:02 / 2:12

CC HD YouTube

A video player interface featuring a man in a black shirt speaking. To his left is a vertical list of five tips, each in a teal box with white text and a small icon. The tips are: 1. Take notes (hand icon), 2. Start specific, then abstract, 3. Spread out your sessions, 4. Find a partner, and 5. Look for questions. A subtitle at the bottom of the video frame reads: "ask participants in more targeted need-finding exercises." The video player includes standard controls like play/pause, volume, and a progress bar showing 1:06 / 1:15. There are also "SEND FEEDBACK" and YouTube sharing buttons.

5 Tips: Naturalistic Observation

SEND FEEDBACK

1. Take notes
2. Start specific, then abstract
3. Spread out your sessions
4. Find a partner
5. Look for questions

ask participants in more targeted need-finding exercises.

▶ 🔍 1:06 / 1:15 CC HD YouTube

A video player interface featuring a man in a grey t-shirt with a white logo speaking. A yellow callout bubble contains the text "You are not your user!" and a smaller image of the same man. A subtitle at the bottom of the video frame reads: "When you're working as a participant observer, you can avail useful insights." The video player includes standard controls like play/pause, volume, and a progress bar showing 1:09 / 1:20. There are also "SEND FEEDBACK" and YouTube sharing buttons.

Participant Observation

SEND FEEDBACK

"You are not your user!"

When you're working as a participant observer, you can avail useful insights.

▶ 🔍 1:09 / 1:20 CC HD YouTube

Hacks and Workarounds

SEND FEEDBACK

**Hacks and Workarounds**

we can do naturalistic and participant observation without having to directly

0:05 / 1:24

CC YouTube

A man with glasses and a black shirt sits in front of a computer setup with two monitors. A green overlay at the bottom right reads "Hacks and Workarounds". Below it, a subtitle says "we can do naturalistic and participant observation without having to directly". The video progress bar shows 0:05 / 1:24. The video is on YouTube.

Errors

SEND FEEDBACK

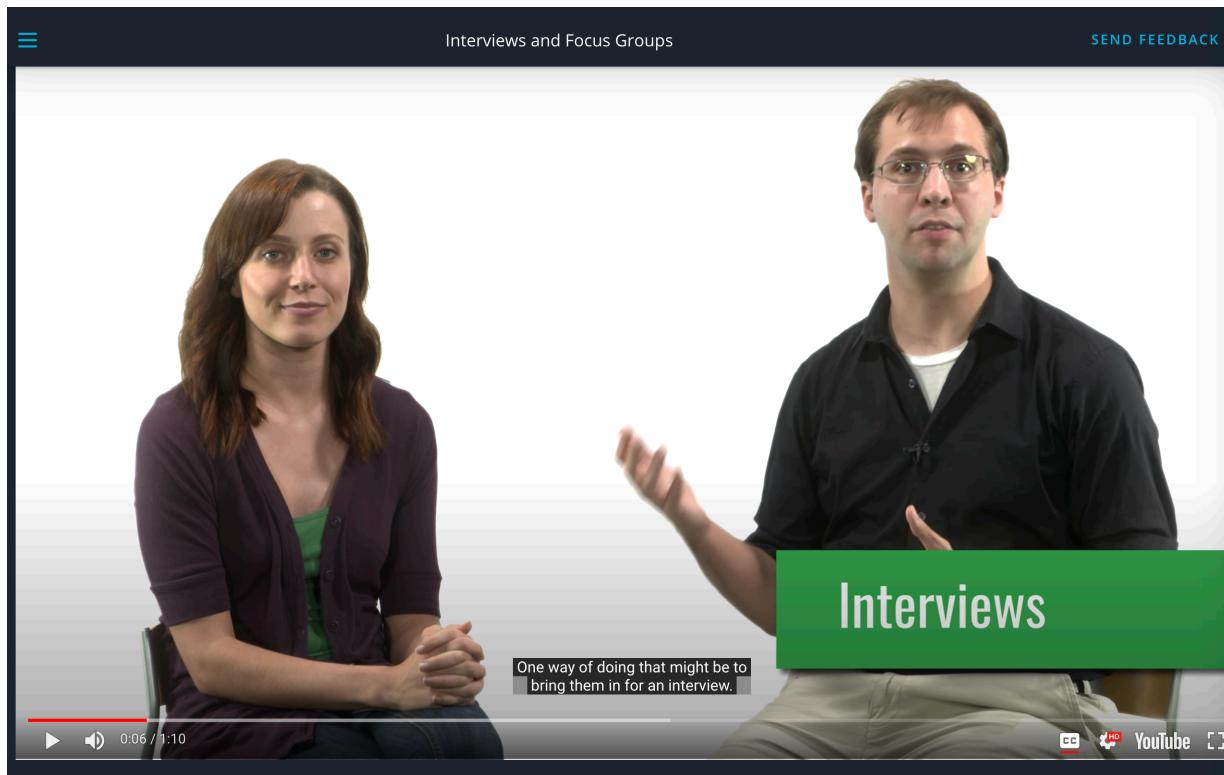
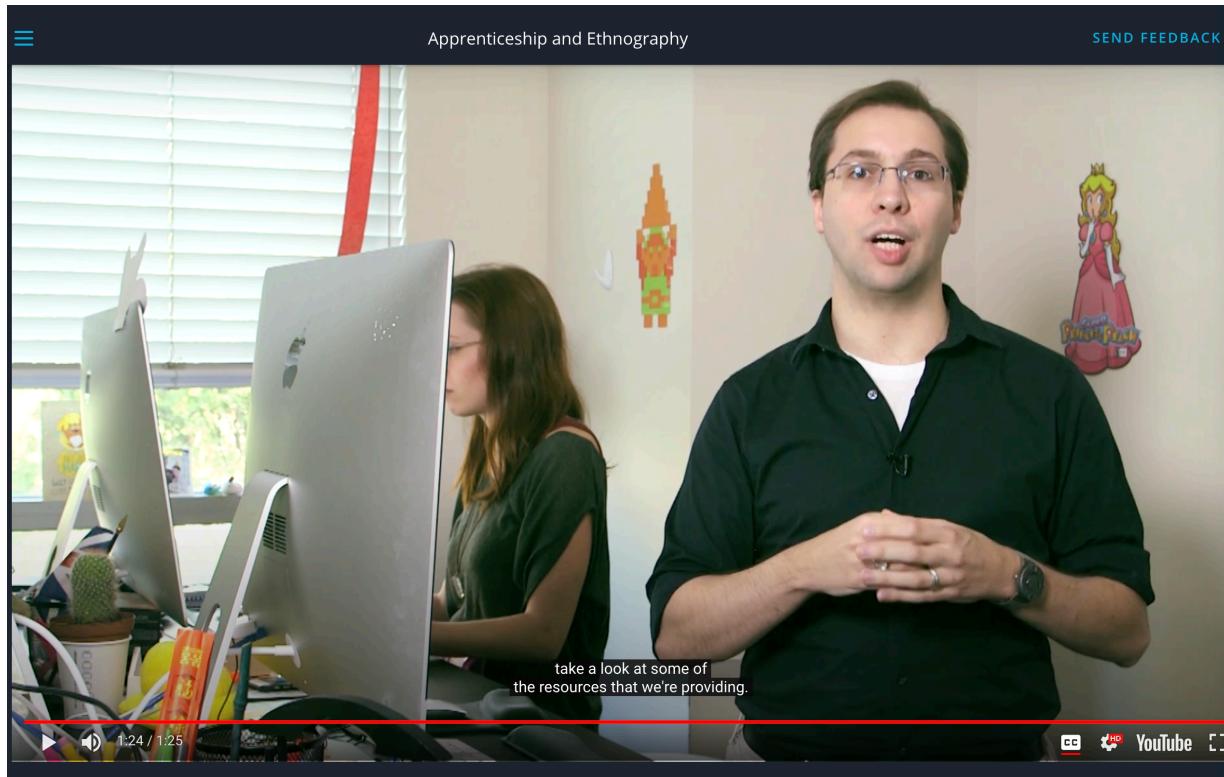
**Lesson 2.6: Errors**

but we can also use those errors to understand a bit more about the user's mental model.

0:08 / 2:11

CC YouTube

A man with glasses and a black shirt sits in front of a computer setup with two monitors. An orange callout bubble on the left points to the right and contains the text "Lesson 2.6: Errors". Below it, a subtitle says "but we can also use those errors to understand a bit more about the user's mental model.". The video progress bar shows 0:08 / 2:11. The video is on YouTube.



Who what where when and how

≡

5 Tips: Interviews

SEND FEEDBACK

1. Focus on the six W's

2. Be aware of bias

3. Listen

4. Organize the interview

5. Practice!

Rehearse the entire interview.

▶ 🔍 1:20 / 1:27

CC HD YouTube

≡

Think-Aloud

SEND FEEDBACK

Think-Aloud

talk about their perceptions of the task.

▶ 🔍 0:04 / 1:06

CC HD YouTube

☰ Think-Aloud SEND FEEDBACK

Post-Event Protocol

which is largely the same,  
except we wait to get the user's

0:57 / 1:06 CC HD YouTube

This video frame shows a man with glasses and a dark shirt sitting in a white wooden chair, gesturing with his hands as he speaks. A green banner at the bottom right reads 'Post-Event Protocol'. A subtitle box contains the text 'which is largely the same, except we wait to get the user's'. The video player interface includes a play button, volume icon, timestamp '0:57 / 1:06', and social sharing icons for CC, HD, YouTube, and a download icon.

☰ Surveys SEND FEEDBACK

Surveys

Most of the other methods for need  
finding, like observation, interviewing,

0:03 / 1:22 CC HD YouTube

This video frame shows the same man standing and gesturing, continuing his speech. A green banner at the bottom right reads 'Surveys'. A subtitle box contains the text 'Most of the other methods for need finding, like observation, interviewing,'. The video player interface includes a play button, volume icon, timestamp '0:03 / 1:22', and social sharing icons for CC, HD, YouTube, and a download icon.

☰ 5 Tips: Surveys SEND FEEDBACK

1. Less is more

2. Be aware of bias

3. Tie them to the inventory

4. Test it out!

5. Iterate!

Give participants a chance to give feedback on the survey

▶ 🔍 1:22 / 1:26 CC HD YouTube

☰ Writing Good Survey Questions SEND FEEDBACK

Be Clear

Be Concise

Be Specific

Be Expressive

Be Unbiased

Be Usable

but they're only useful if the questions are actually well-written.

▶ 🔍 0:04 / 9:59 CC HD YouTube

☰ Other Data Gathering Methods SEND FEEDBACK

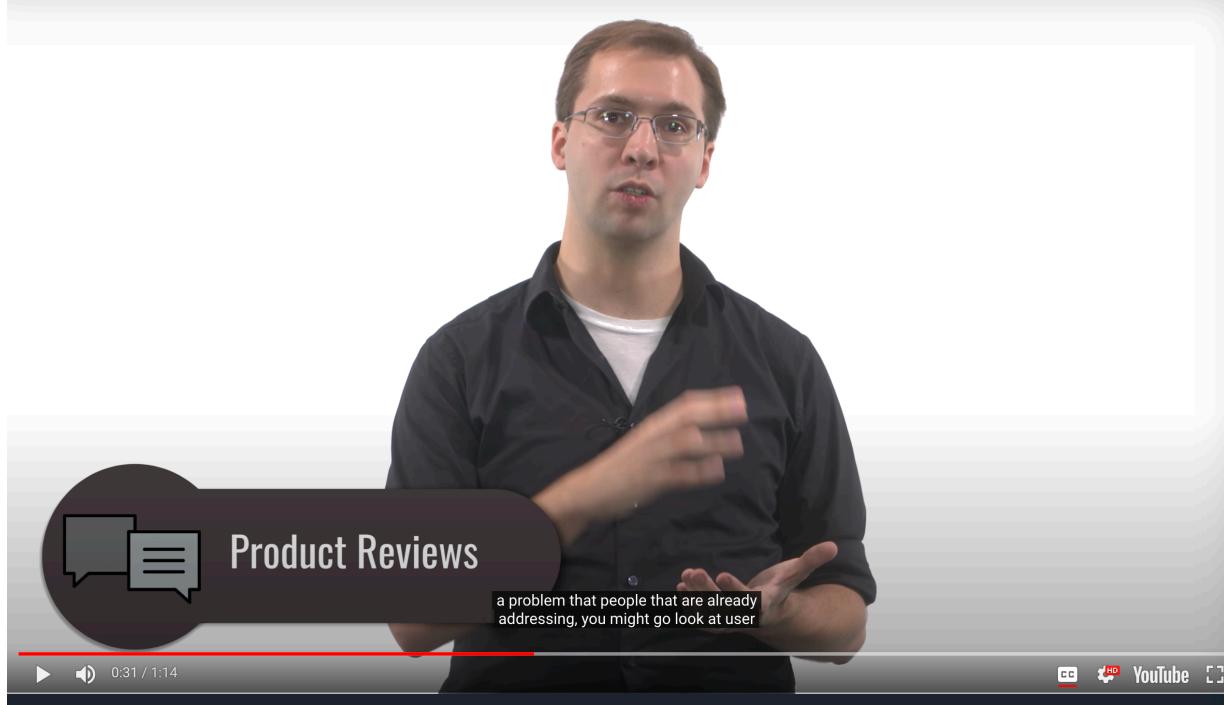


Existing UI evaluation

First, if you're designing for a task for which interfaces already exist,

▶ 🔊 0:10 / 1:14 CC HD YouTube

☰ Other Data Gathering Methods SEND FEEDBACK



Product Reviews

a problem that people that are already addressing, you might go look at user

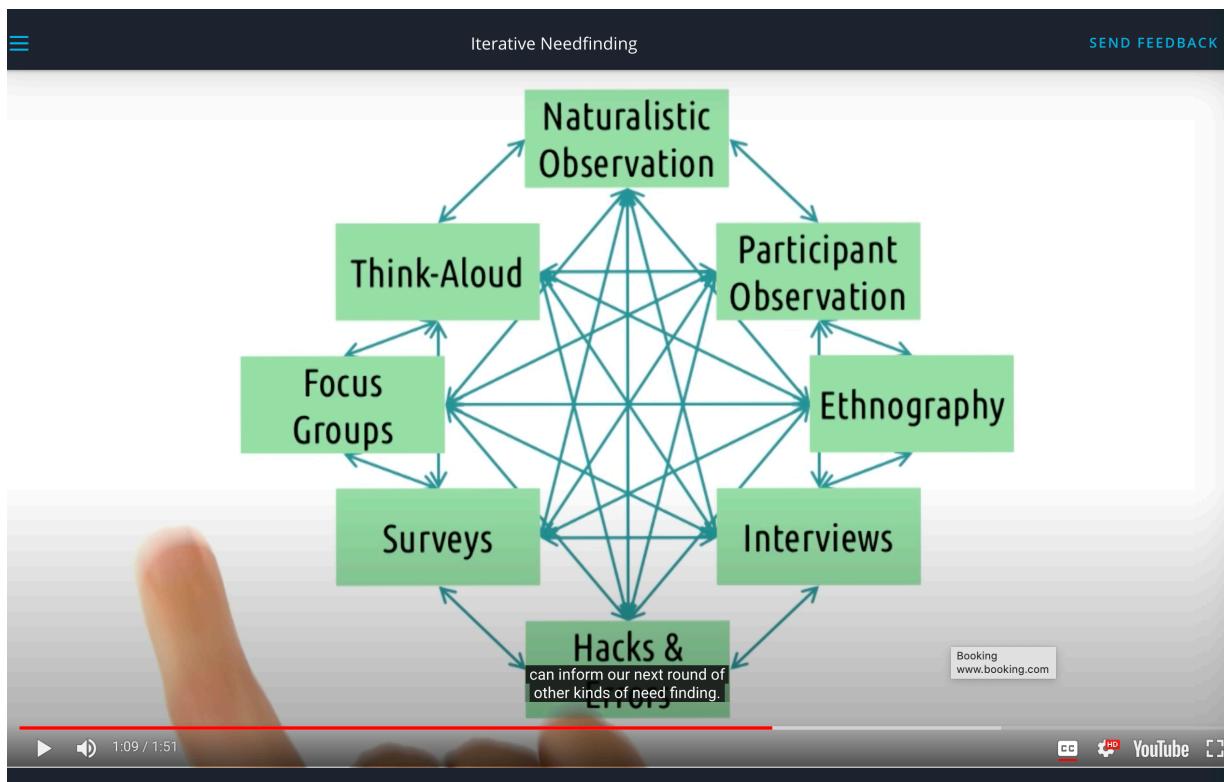
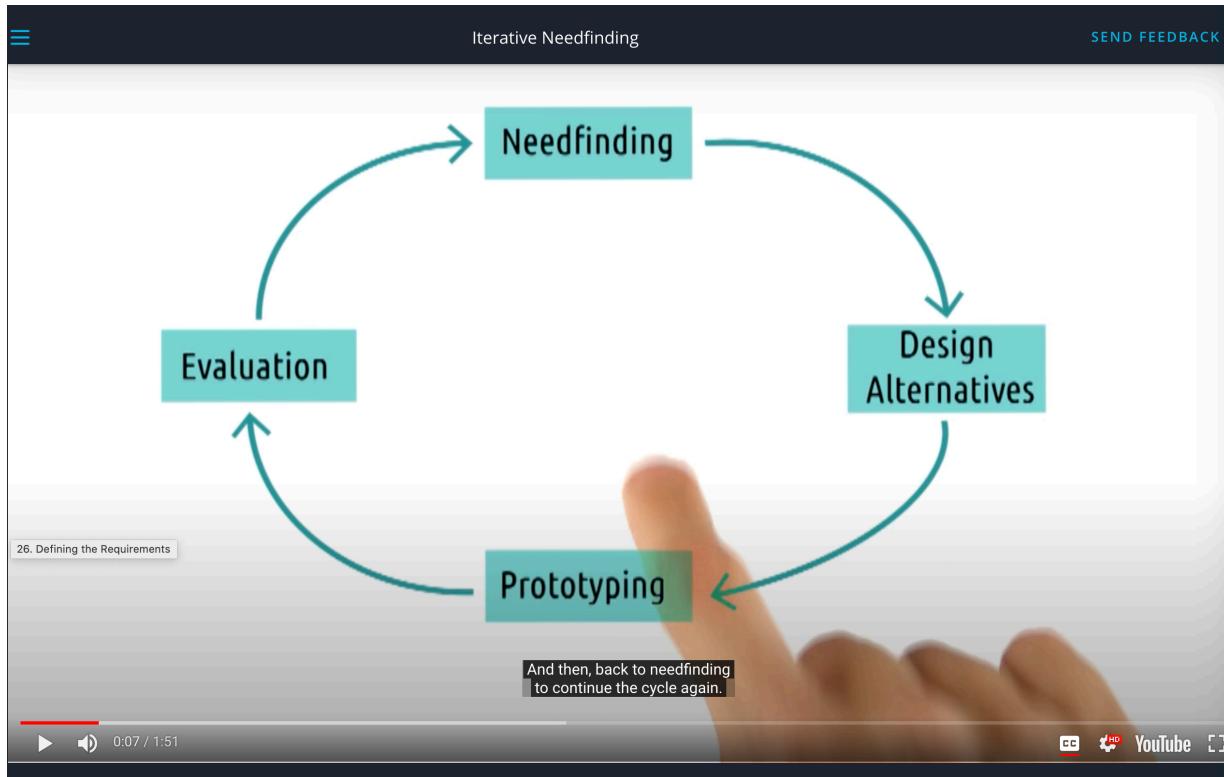
▶ 🔊 0:31 / 1:14 CC HD YouTube

☰ Other Data Gathering Methods SEND FEEDBACK

A video player interface featuring a man in a black shirt and glasses speaking. A dark overlay on the left contains a small bar chart icon and the text "Data Logs". Below the video, a subtitle reads: "logging like web surfing, you could try to get some logs of user interaction". The video progress bar shows 0:54 / 1:14. The bottom right corner includes standard video controls: CC, HD, YouTube, and a full-screen icon.

☰ Exercise: Needfinding Pros and Cons SEND FEEDBACK

A slide titled "Exercise: Needfinding Pros and Cons". It features a circular profile picture of a smiling man. To his right, the text "Match the advantage to the needfinding method." is displayed above a list of nine needfinding methods: Naturalistic Observation, Participant Observation, Errors and Hacks, Interviews, Surveys, Focus Groups, Apprenticeship, and Think-Aloud. Below this list is a 4x4 grid of teal squares. To the left of the grid, five statements are listed: "Analyzes data that already exists", "Requires no recruitment", "Requires no synchronous participation", "Investigates participant's thoughts", and "Occurs within the task context". A note at the bottom states: "Our analysis of them usually doesn't." The video progress bar at the bottom shows 3:05 / 3:34. The bottom right corner includes standard video controls: CC, HD, YouTube, and a full-screen icon.





1. Who are the users?
2. Where are the users?
3. What is the context of the task?
4. What are their goals?
5. Right now, what do they need?
6. What are their tasks?
7. What are the subtasks?



And seven, what are the subtasks?



Functionality

Usability

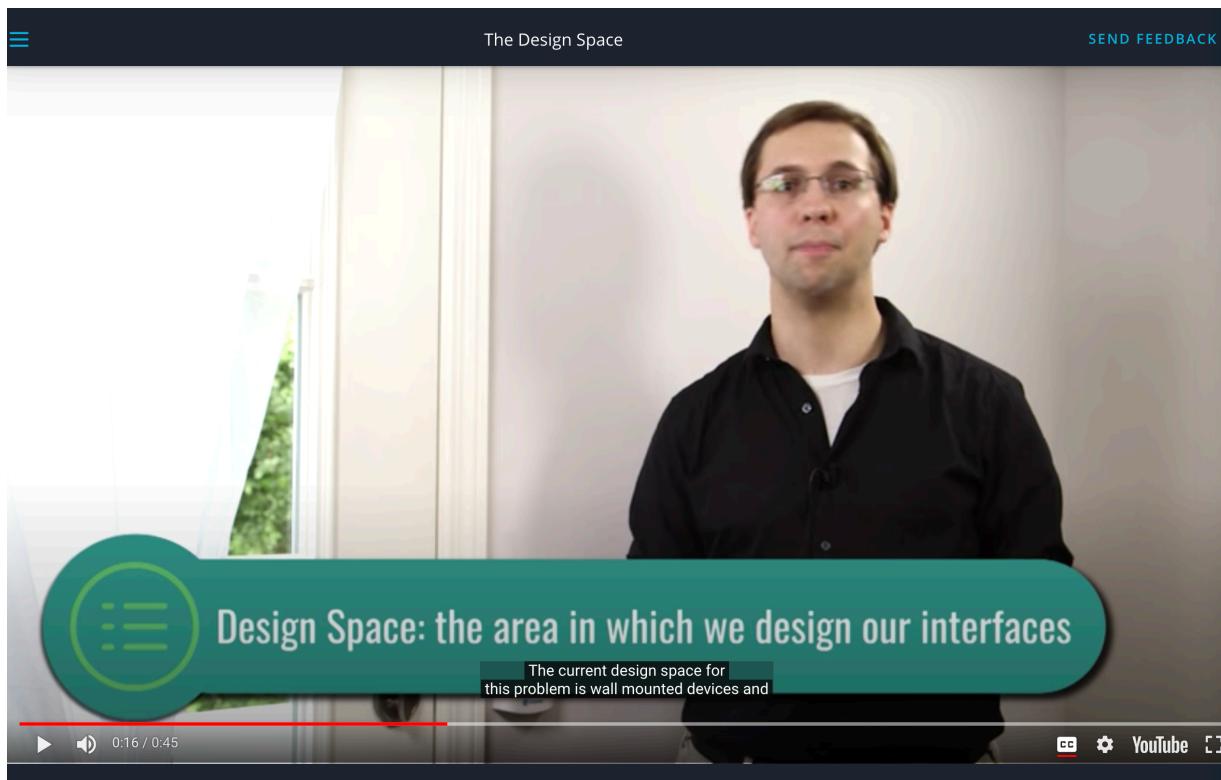
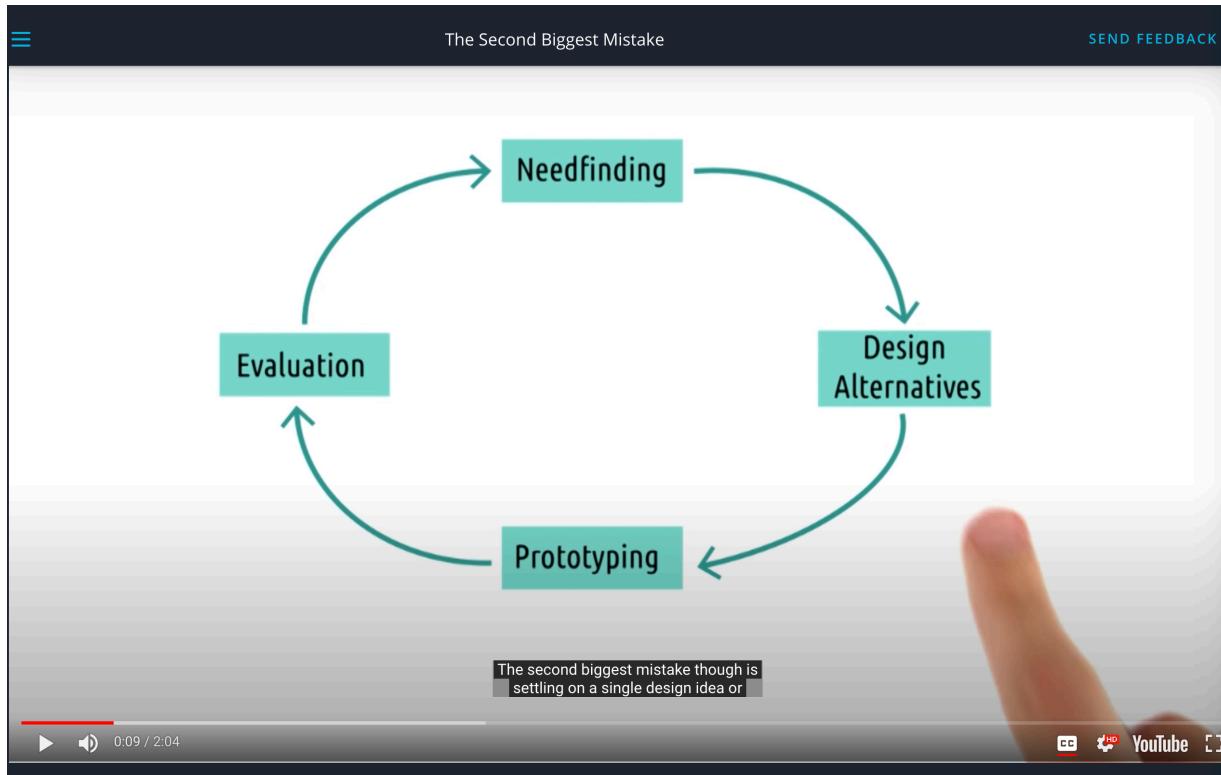
Learnability

Accessibility

Compatibility

Compliance

Cost



☰ Individual Brainstorming 1 SEND FEEDBACK

Research shows: it's better to start with individual brainstorming.

We often hold meetings for brainstorming.

▶ 🔍 0:28 / 1:26 CC YouTube

☰ 5 Tips: Individual Brainstorming SEND FEEDBACK

-  1. Write down the core problem
- 2. Constrain yourself
- 3. Aim for 20
- 4. Take a break
- 5. Divide and conquer

brainstorm solutions to each individual little problem.

▶ 🔍 1:40 / 1:41 CC YouTube

☰ Challenges in Group Brainstorming SEND FEEDBACK

**Social Loafing:** A The tendency to exert less effort working in groups than working alone.

People often don't tend to work as hard in groups as they would individually.

Music

▶ 🔍 0:13 / 1:56 CC ⚙ YouTube

☰ Challenges in Group Brainstorming SEND FEEDBACK

**Conformity:** The tendency to agree with or follow the group's reasoning and ideas.

Studies have shown that

▶ 🔍 0:28 / 1:56 CC ⚙ YouTube



Notes



**Production Blocking:** The tendency of some individuals in discussions to block other individuals' participation.

In group brainstorming,  
there are often individuals who dominate



0:50 / 1:56



YouTube



**Performance Matching:** The tendency to match one's level of performance to other collaborators'

People tend to converge in terms of passion and performance,



1:07 / 1:56



YouTube





**Power dynamics: The tendency to defer to more senior individuals, or to overpower less senior individuals.**

No matter how supportive and collaborative a boss might be,



1:27 / 1:56



YouTube



Expressiveness

Nonevaluation

Quantity

Building

Stay focused

No explaining ideas

Revisit the problem

Encourage others



1. Go through every individual idea
2. Find the optimal size
3. Set clear rules for communication
4. Set clear expectations
5. End with ideas, not decisions



before coming back and choosing the ideas to pursue later.

▶ 🔍 1:55 / 1:55

CC ⚙ YouTube



### ANIKA

BACKGROUND: 37 years old. Her spouse is the primary caretaker of their kids, but also works part-time in the evenings, so Anika generally works from 9 to 5:30 and takes care of the kids in the evenings.

EMPLOYMENT: Works full-time as a graphic designer for a local web development firm.

FAMILY: Married with two children (9 and 7) and one stepchild (12).

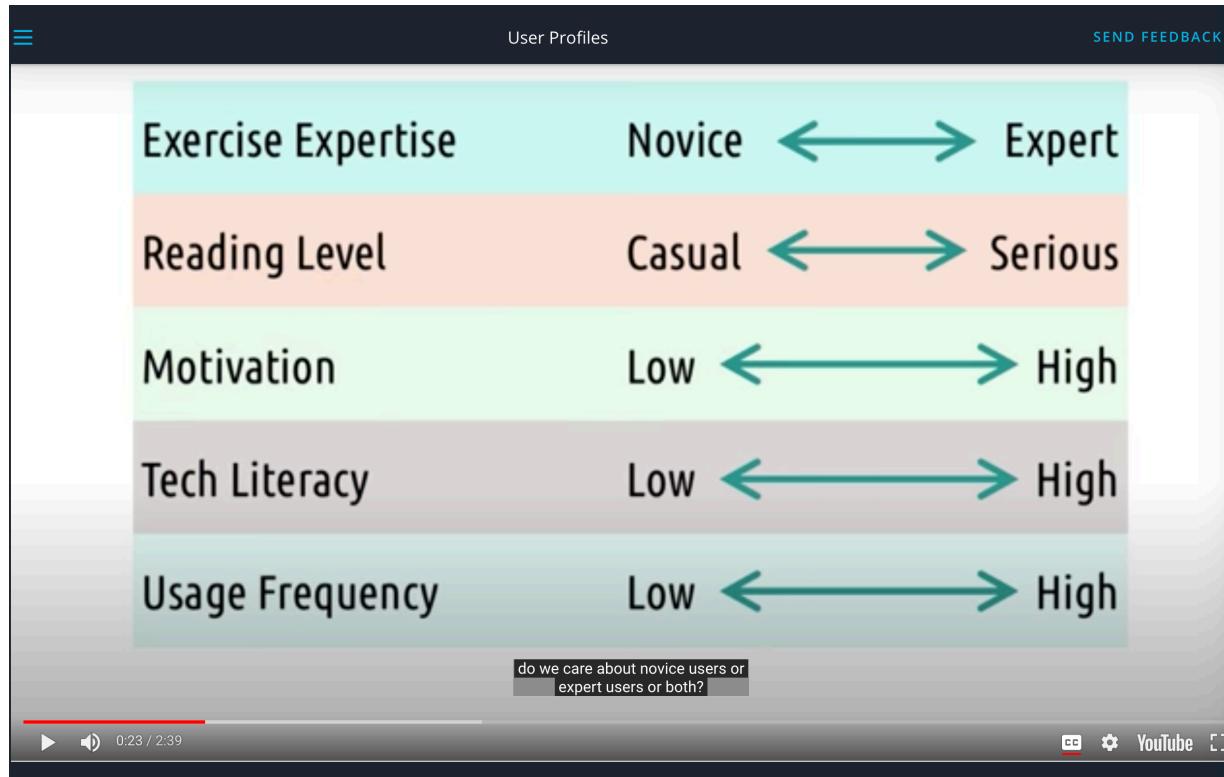
INTERESTS: Anika is keenly interested in politics, especially international politics. She likes to keep up to date on recent events, but she also likes to learn about the history that led to the world's current political climate. She hopes to start a blog about geopolitics, but feels right now she lacks sufficient expertise to start.

TECH SAVVINESS: Anika considers herself an expert user of technology. She's usually an early adopter for new devices.

We want to be able to say,  
what would Anika do in this situation?

▶ 🔍 0:24 / 1:15

CC ⚙ YouTube





could actually be a video mockup of what it would be like to use the finished product.



2:38 / 2:42

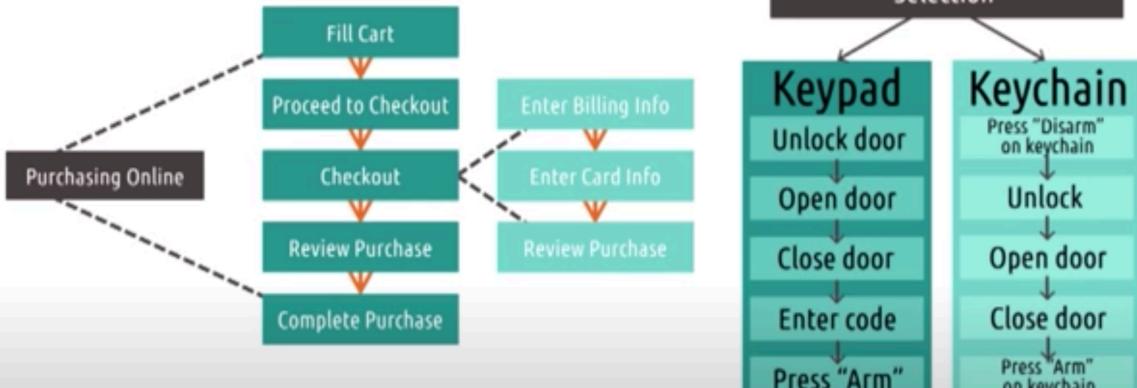


YouTube



### (Entering home with alarm set)

#### Selection



So ideally, the result of this kind of analysis is we would be able to say that



1:02 / 1:16



YouTube

