

## What to do in Need Finding



The most important thing about need finding in design thinking is that we look without knowing what we are looking for. We trust that our ability to define the problem will emerge during the need finding process.

### PRINCIPLES

- Human Centered Design (Look to users for design inspiration.)

### PURPOSE

- Uncover Latent Needs: Gaps in Use, Usability & Meaning (Look for surprises, differences between what people say they do and what actually do.)
- Gain Empathy for Users (Discover the emotions that guide behaviors.)
- Look for Extreme Users (Users who are pushing the system may reveal needs before the mainstream.)

### PROCESS

- Bring back Stories (specific) and Artifacts (photos, drawings quotes) that communicate your Insights.
- After the observation phase, you will gather with your team to share findings and insights. Bias toward capturing your observations in ways that are visual, sharable & evocative.
- PHOTOS  
Use photos to isolate points of interest & generate later discussion. Take as many as possible: 20 / hr is a good pace.
- SKETCHES  
Sketches are a great way to interpret a scene, to create a broad representation or to call out specific details.

- **QUOTES**  
Short quotations can be a great way to communicate the essence of a conversation with a user. Transfer to post-its.
- **STORIES**  
Jot down notes as you speak with users in the field. Good stories are a tool for building empathy making meaning.
- **RECORDINGS** audio & video  
Recordings of users expressing their needs are compelling. These recordings are good storytelling media in the long run.
- **ARTIFACTS**  
Anything you can take with you from the location can be a good illustration of the cultural detail.

### Anatomy of a good need finding tool

Successful interviews and interactions with users often follow some basic rules. Knowing some of these and understanding the anatomy of a good need finding process will help you to gain insight into peoples needs and invent some need finding tools of your own.

At the highest level, good need finding tools need:

- Good subjects (interesting, open, expert, unusual, observant, etc.)
- Good environments (in situ, friendly, “safe”, etc.)
- Structure and flexibility (have a plan and goals, but pursue new opportunities)
- Great stories (capture images, quotes, etc. that bring your interview to life)
- Iterative designs (iterate interview structure and goals based on results)
- Ways to drive past the explicit insights to implicit drivers
- Ways to avoid Hawthorne effect (distortion of behavior due to observation)
- Allow for silence – if you listen, they will speak
- Respect your subjects

There are two basic kinds of need finding tools: **observations and interviews**. [See the handouts for each of those]. There are lots of flavors of these tools, here are a few examples.

### Observation

What: Viewing users and their behavior in context

When: You want to see users in their element and learn about their experience

How: There are several methods

- “Deep hanging out” – spend time in the vicinity of the subjects
- Walk in the subjects shoes: assume the role of the subject
- Ask for a tour from an insider
- Paparazzi – observe and photograph anonymously
- Other – security cameras, head cameras for subjects, etc.

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### Lead user interviews

What: Interviews with fanatics (the most rabid consumers of an experience)

When: You would like to see the future of usage, or understand an experience from the perspective of its most critical subject.

How: Beyond traditional interview structure, you should

- Look for the most extreme users (use your network, look for blogs owners, etc. to find people like the guy who is visiting every Starbucks in the world)
- Make contact, and state your interest in them and their views
- Ask questions that are more open ended and blunt “Why do you think people pay more for coffee now than they did in the past?” “What do you think we need to know?”
- Engage them in an ongoing way – lead users make great testers for your prototypes!

### Expert interviews

What: Interviews with subjects who have domain expertise

When: You need to come up to speed on the context of your design quickly

How: Beyond traditional interview structure, you should

- Ask open ended questions that allow them to educate you. “I am a designer, so I don’t really understand coffee chemistry. As a food chemist, can you explain to me how coffee ‘works’?”
- Try to understand their role in the user’s experience. “If I come in to your store to get a coffee, what, as the barista, do you do?”
- Gather ideas for needs that experts may uniquely see. e.g. “What bothers you most about your job?”

### Camera studies

What: Providing cameras to subject who document their experience

When: When you would like to understand a user’s experience by seeing it through their eyes

How: Steps

- Identify subjects
- Explain purpose of study
- Get permission to use images
- Provide cameras and instructions, eg:

“We would like to understand what a day in your life feels like. On a day of your choosing, take this camera with you everywhere you go. Take photos of people, places, things, and experiences that are important to you. Shoot the whole roll all in one day. When you are done, return the camera in the enclosed envelope. Thank you!”

### Surveys

What: A series of carefully structured questions that can be

When: You would like to get many perspectives rapidly or quantify / test insights

How: Steps

- Identify screener for subjects
- Develop and sequence questions (see above rules)
- Include explanation of survey in survey instructions
- Provide progress updates through survey
- Ask at least one open ended question
- Test the survey before releasing it
- [www.surveymonkey.com](http://www.surveymonkey.com) and other tools are very useful

### History interview

What: An interview intended to understand a sequence of events

When: You would like to understand the historical context, or where subject behavior, feelings, or thoughts came from

How: After traditional early interview elements

- Establish subject - "What is your favorite beverage?"
- Signal interest – "How long has it been your favorite? Why?"
- Establish start – "What is your earliest memory of [beverage]?"
- Walk forward – "What happened next? Next? Next?"

### Process mapping

What: A tool to understand the COMPLETE experience

When:

How: Start with the experience you are considering (e.g. buying coffee)

- From the user's point of view, mentally step back to the earliest stage of the process (e.g. thinking about coffee, or waking up, etc.)
- Step through every element of the process, recording it
- Analyze your map: what happens at each of these stages? Why? How do the stages relate? What opportunities do you see?

### Laddering (or 5-why) interview

What: A method for driving to implicit causes based on asking why multiple times

When:

How: After traditional early interview elements

- Warn of your weird behavior: "Have you ever talked to a five year old? I am going to act like one and ask you why again and again. Even when you give a good answer, I will continue to ask you why. My goal is to understand why you do what you do at the deepest possible level."
- Focus on something important to the subject (where there actually is a why)
- Establish subject - "What is your favorite beverage?"
- Establish base interest – "What are three reasons why it is your favorite?"
- Dive into each reason – "You said [reason one] why is that important to you?"
- "Why?"
- "Why?"
- This is a difficult interview technique as subjects can rarely articulate why they do what they do – in fact, they are often unaware of their own motives
- Allow space and silence for subjects to answer the hard why questions
- NOTE: This technique can be used in a variety of ways. Toyota uses a process like this uncover the root causes of manufacturing problems.

### Cultural context interview

What: An unfocused tool for understanding

When: You would like to formulate implicit needs based in part on the more general values of a subject

How: This interviews requires a good amount of trust, so you may use this tool at the end of another type of interview. This interview is relatively unstructured, but there is a list of questions that we have found to be illuminating. Note the need to sequence the questions.

- Start with a statement of intent – "I'd like to get a sense of who you are and what you care about."
- Where did you grow up?
- How did you like that?
- What was our family like?
- What are your favorite (books, movies, TV shows)? Why?
- Do you have any hobbies? What are they?
- What is most important to you?
- What do you wish for?

- What keeps you up at night?
- What are your fears?
- Note that the magic is in the follow up questions. Everywhere your subject displays enthusiasm, give them room to run. Ask lots of follow up questions, and go deep into the drivers of their enthusiasm.
- Analyze your findings – the seemingly disjointed pieces you gather in this interview can be combined with insight from other tools to form a great story.

### Need exploration interview

What: An informal discussion at a pre-arranged time and place with a potential user of designs you will be developing

When: When you want to gain empathy and deeper insight into the needs

How: The key is to be approachable and develop rapport.

- What we are looking for in this interview is for you to get a feel for the lives of the people you interview, and the way their lives are affected by mobility concerns. This includes their physical health, ability to do daily activities, desires, fears, and experiences. Unlike some interviews, you are not trying to get answers to a set of specific questions. It is more of an open-ended exploration around a theme. Questions should be open-ended, like “What do you like to do?” and “How has your life changed as you’ve gotten older”, rather than specific things like “Do your legs bother you?” or “How many flights of stairs can you walk up?”. Questions like the latter may well emerge in the context of their stories. Take note of them as well.

### Intercepts

What: A brief question and answer session in the field

When: When you want quick and specific in context information

How: The key is to be approachable to your

- Dress like your subjects
- Approach them on exit politely “Hi, I’m a Stanford student studying [subject] can I ask you a question about your [experience] today?”
- Do not press
- Ask your question, and capture the answer
- If appropriate, ask to take a photo or ask follow on questions

### How do you know when you’ve got an Ah-Ha?

- You have the implicit insight
- You have uncovered a surprise or found what is missing
- You can explain why people do unusual things
- You can explain a contradiction
- In interviews, you know what the subject will say next
- You can tell a good story
- You want to tell your friends, significant other, and people on the train what you learned