

# Cultural Probes

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Recap: What is design research?

# Design research is about learning from people in the context of their lives.

Find Problems

Understand a Topic

Build Empathy

## Introduction

# Cultural probes examine a participant's life through creative interventions.

A cultural probe is a creative tool that's distributed in an incomplete state to a participant. The participant completes it, typically by working through a creative activity. Then, the results are analyzed and interpreted.

Cultural probes are typically:

- Intended to understand values and experiences
- Focused on experiential or cultural activities that are highly emotional
- Focused on extracting inspiration from people, positioning them as co-designers

## Cultural Probes

### Diary Studies

Participants are given a pre-structured diary, with daily prompts. They are instructed to complete the diary each day for a period of time (often a week), and then they share the contents with the research team.

Open-ended questions aim at better understanding how people feel.

A small journal is selected as the physical journal in order to make the questions and answers feel more intimate.



## Cultural Probes

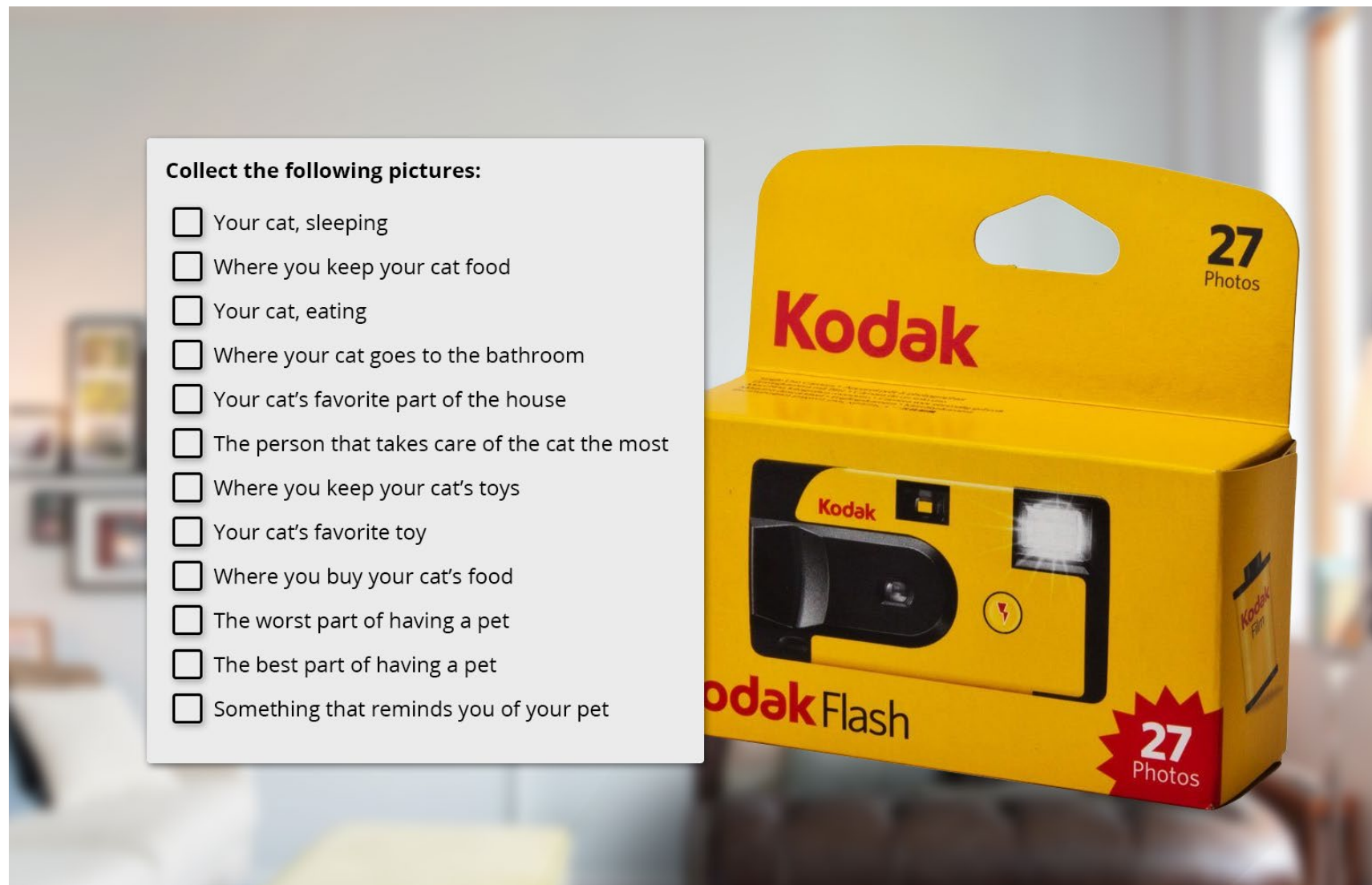
### Photo Scavenger Hunt

Participants are given a disposable camera and a list of pictures to collect. Some of the pictures are specific items or scenes, while others are feelings or memories.

Using a physical disposable camera instead of a camera phone makes the probe feel more intimate and personal.

#### Collect the following pictures:

- Your cat, sleeping
- Where you keep your cat food
- Your cat, eating
- Where your cat goes to the bathroom
- Your cat's favorite part of the house
- The person that takes care of the cat the most
- Where you keep your cat's toys
- Your cat's favorite toy
- Where you buy your cat's food
- The worst part of having a pet
- The best part of having a pet
- Something that reminds you of your pet



## Cultural Probes

### Daily Postcards

Participants are given a set of blank postcards, and instructed to write a letter to the research team once every few days, describing what's on their mind.

The physical size of the postcard limits the amount of a participant can write, forcing them to be selective.





## Types of probes

# There are a variety of common types of probes used to explore human behavior.

Design Research	Market Research	
<b>Diary study</b>	A daily log of participant's actions or feelings	Capture behavior over time
<b>Photo scavenger hunt</b>	A series of photos to "collect"	View into a participant's life
<b>Daily postcards</b>	A regular postcard sent from the participant to the researchers	Capture anecdotes over time
<b>Video ethnographies</b>	A regularly scheduled video recorded by the participant around a particular subject	Place the participant in an intimate, first-person context
<b>SMS-prompt</b>	A reminder sent to a participant via SMS to do a certain action	Provoke intermittent behavior
<b>Save an item</b>	A physical item that is regularly saved by the participant	Understand how artifacts impact a person's life
<b>Topic-specific Worksheet</b>	A unique set of prompts or questions	Explore a specific set of questions or ideas

## Designing the probe

# While probes are specific to a problem context, there's a common process to develop them.

The steps to develop a culture probe include:

1. Identify the research goal and research participants, and create a research plan
2. Craft the probe
3. Pilot-test the probe
4. Distribute the probe
5. Collect the results
6. Analyze the results with the participant
7. Analyze the results without the participant



## Design the probe research plan

# To begin developing the probe, identify the goals of your research.

Because the form of a cultural probe is so broad, it's important to identify your goal by asking the question "What do we hope to learn about?" Answer to this question may include:

**We hope to learn about how people's attitudes about their body change from day to day and we intend to focus on teenage girls who are actively involved in extracurricular activities**

**We hope to view an intimate glimpse into a participant's eating habits, focusing on participants that eat primarily prepared and frozen meals**

**We hope to see how a participant's mood changes throughout the day, focusing on participants that have a history of mood disorders**

The research goal informs the development of the probe, and also drives the selection of participants.

## Identifying the format

# Develop a probe that provokes an intervention with your target participants.

Starting with your research goal, identify a variety of ways you can learn your desired information from your participants. For example:

**We hope to view an intimate glimpse into a participant's eating habits, focusing on participants that eat primarily prepared and frozen meals**

**We can learn this by:**

What we'll do	What we'll learn
Ask participants to take photos of dinnertime	The types of things people eat, and the context in which they eat them
Ask participants to wave a magic wand over their meals to make idealized versions of their food	Perceptions of the problems with a given meal, and things that constrain a participant from improving their food choices
Ask participants to film themselves shopping at the grocery store	The way people make selections about what to cook, and the types of places they shop
Ask participants to "collect" meals with healthy ingredients and log their reaction to the taste	The way participants think about healthy foods, and their attitudes about tastes and preferences

## Identifying the format

# Develop a probe that provokes an intervention with your target participants.

Based on the possible intervention methods, select an intervention and probe format that seems logistically feasible, time and cost effective, and that feels most likely to deliver on your research goal.

**We hope to view an intimate glimpse into a participant's eating habits, focusing on participants that eat primarily prepared and frozen meals**

What we'll do	What we'll learn
Ask participants to take photos of dinnertime	The types of things people eat, and the context in which they eat them
Ask participants to wave a magic wand over their meals to make idealized versions of their food	Perceptions of the problems with a given meal, and things that constrain a participant from improving their food choices

**We will leverage a photo journal format that asks participants to log what they eat at dinnertime, and then answer questions about the meal.**


## Designing the materials

# Build the probe materials that will be distributed to the participant.


Craft the actual materials that you will distribute to the participant. Be sure to include:

- A container for distributing and storing the materials
- Instructions for the participant on what to do and when to do it
- A calendar representing the duration of the study, and instructions on what will happen when the study is over
- The actual probe materials, developed at a level of fidelity that looks manufactured and real

Designing the materials

 <i>What I ate for dinner today</i>		<i>Monday</i>	
<i>First, take 3 pictures of dinner with your phone.</i>			
<i>Describe your dinner.</i>	<i>Why did you pick this meal?</i>	<i>How did you feel about your meal?</i>	<i>If you could change one thing about your meal, what would you change?</i>


Designing the materials

 <i>What I ate for dinner today</i> <div style="float: right; border: 1px solid black; padding: 5px; margin-left: 20px;"><i>Monday</i></div>			
<p><i>First, take 3 pictures of dinner with your phone.</i></p>			
<p><i>Describe your dinner.</i></p>	<p><i>Why did you pick this meal?</i></p>	<p><i>How did you feel about your meal?</i></p>	<p><i>If you could change one thing about your meal, what would you change?</i></p>

**Daily reminder**

An indicator reminds the participant to fill out the worksheet once each day. Different worksheets are provided for each day, even if they have the same content on them.

Designing the materials


		<p><i>What I ate for dinner today</i></p>		<p><i>Monday</i></p>
<div style="border: 2px solid black; padding: 5px; display: inline-block;"> <p><i>First, take 3 pictures of dinner with your phone.</i></p> </div>				
<p><i>Describe your dinner.</i></p>	<p><i>Why did you pick this meal?</i></p>	<p><i>How did you feel about your meal?</i></p>	<p><i>If you could change one thing about your meal, what would you change?</i></p>	

**Instructions**

**Very brief** instructions remind the participant what to do.



Designing the materials

 <span style="float: right;"><i>Monday</i></span>			
<p><i>What I ate for dinner today</i></p> <p><i>First, take 3 pictures of dinner with your phone.</i></p>			
<p><i>Describe your dinner.</i></p>	<p><i>Why did you pick this meal?</i></p>	<p><i>How did you feel about your meal?</i></p>	<p><i>If you could change one thing about your meal, what would you change?</i></p>

**Response area**

The worksheet size, and the size of the response area, indicate the level of detail the participant should use in describing their meal. A single sheet is typically the most a participant will engage with.

Questions are short and use basic language.

## Running a pilot test

# Once you have the probe developed, pilot test it with your team before distributing it.

Treat a pilot test like the real intervention; if your intervention runs a week, have a team member test the materials for a week; if the pilot requires them to record video, have them really record video; and so-on.

A pilot ensures that:

- Your instructions are clear and make sense
- Your materials feel professional
- The length and commitment of the intervention is appropriate and not prohibitive
- The type of results you are getting are indicative of the type of results you hope to get

## Distribute and retrieve the probe

# Now, distribute the probe to the target audience, and retrieve it when the study is over.

When you distribute the probe:

- Ensure that the instructions are clear to the participant (both how to complete the probe and also how and when to return it)
- Keep a log of who has received the probe, and when they should return it
- Send reminders to the participant on a regular basis to ensure that they remember to complete the probe

When you retrieve the probe:

- Identify and discard inappropriate or incomplete content
- Organize the returned probes so you understand which materials came from each participant

## Analyze the results

# Together with the participant, walk through their probe results and discuss the results.

After the probe has been returned, schedule a time to walk through the results with the participant. Engage in a dialogue with them about the results.



### Ask questions that:

- Are open ended; *What were you thinking about when you wrote that?*
- Encourage further discussion; *Tell me more about this photograph.*
- Encourage introspection; *What does this mean to you?*



### Avoid questions that:

- Require estimating quantities or frequencies; *How often do you do it like this?*
- Lead the participant; *This is important to you, isn't it?*
- Judge the participant; *Why do you eat food that you know is bad for you?*

Analyze the results

# Together with the participant, walk through their probe results and discuss the results.

**What I ate for dinner today** Monday

*First, take 3 pictures of dinner with your cellphone.*

<p><i>Describe your dinner.</i></p> <p>WIFE AND I HAD CHICKEN FRIED STEAK, CORN, BROCCOLI, FRIES, AND CUCUMBERS. SHE COOKED IT.</p>	<p><i>Why did you pick this meal?</i></p> <p>WE TRY TO EAT SOMETHING HEALTHY LIKE THIS ONCE A WEEK.</p>	<p><i>How did you feel about your meal?</i></p> <p><u>AWESOME!</u> WIFE IS A GREAT COOK AND SHE EVEN MAKES BROCCOLI TASTE GOOD. 😊</p>	<p><i>If you could change one thing about your meal, what would you change?</i></p> <p>I WISH WE HAD TIME TO COOK AT HOME MORE OFTEN.</p>
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- ✓ You mentioned that you try to eat something healthy like this once a week. Can you tell me more about that?
- You wrote that you wished you had time to cook at home more often. What were you thinking about when you wrote that?
- ✗ You described eating healthy, but this meal clearly isn't. When do you actually eat healthy food?
- You like it when your wife cooks, don't you?
- If you could cook at home as many times a week as you wanted, how many times would you choose?

## Analyze the results

# In your design team, analyze the results for patterns, anomalies, and stories.

Looking at all of the participant responses at once, begin to interpret the data. Look for:

- Patterns that you see repeating themselves across participants
- Extremely anomalous behavior that you see only once and that you know is eccentric
- Stories that people tell about their lives, dreams, and desires
- Examples of problems, deviant behavior, disappointments, and other negative sentiment

Why are we doing this?

# Use cultural probes as a way to understand private, personal behavior.

Although there are many benefits to cultural probes, perhaps the most important is that it allows you to peer into the personal life of a participant. You can begin to view intimate details of their experiences, giving you rich data to interpret.

Leverage cultural probes as a generative method, along with contextual inquiry as a foundational method.



Why are we doing this?

# Cultural probes are a primary method for generative human-centered research.

## Find Problems

As you catch a glimpse into the lives of your participants, you'll identify places where new products, services, and capabilities can improve quality of life.

## Understand a Topic

You'll gain an understanding of your subject matter, particularly as it's understood and considered by your users. They will point you to what's important, and help you understand the nuances of their life experience.

## Build Empathy

You'll receive intimate, highly emotional content related to your participants. This material will help you understand their behavior, and will support your future work as you can see the world through their eyes.

# Thank you!

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