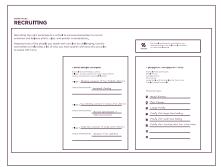# (H) (C) (D)

HEAR: GOALS

Designing meaningful and innovative solutions that serve your customers begins with gaining deep empathy for their needs, hopes and aspirations for the future. The Hear booklet will equip the team with methodologies and tips for engaging people in their own contexts to delve beneath the surface.

Goals of this book are to guide:

» **Who to talk to**

» **How to gain empathy**

» **How to capture stories**

(H) (C) (D)

HEAR: OUTPUTS

At the end of the Hear phase, you'll be prepared to go into the field to conduct design research by completing the worksheets in your Field Guide:

» Recruiting Plan
» Research Schedule
» Identity, Power & Politics
» Group Interview Guide
» Individual Interview Guide

Outputs of the Hear Phase are:

» People's stories

» Observations of people's reality

» Deeper understanding of needs, barriers, & constraints

(H) (C) (D)

HEAR: THEORY

Qualitative design research methods enable the design team to gain deep empathy for people they are designing for, to question assumptions, and to inspire new solutions. At the early stages of the process, **design research is *generative*** — used to inspire imagination and inform intuition about new opportunities and ideas. In later phases, these methods can be *evaluative*—used to learn quickly about people's response to ideas and proposed solutions.

What will qualitative research methods do?

Qualitative research can uncover deeply-held needs, desires, and aspirations. It is particularly useful in early-stage research to test assumptions about the world, and when we cannot assume that the researchers already know the entire universe of possible answers, beliefs, and ideas of the participants. **Qualitative methods can help unveil people's social, political, economic, and cultural opportunities and barriers in their own words.** Qualitative research can also be powerful for analyzing and mapping the relational dynamics between people, places, objects, and institutions. This is possible because phenomena in the social world tend to be internally related (that is, they are mutually-dependent and co-constituted). By examining the extreme ends of a set of phenomena, the entire universe of relationships can be illuminated since every other instance will fall somewhere on the map of relations and links. Once a set of relationships are identified, they can be interrogated using interpretive methods or further refined for quantitative testing.

What will qualitative methods not do?

Qualitative methods will not determine "average" behaviors/attitudes or answer questions such as: "Are people in X region more likely to do this than in Y region?" This is because qualitative methods do not cover a sample large enough to be statistically significant. **Deep understanding, not broad coverage,** is the strength of qualitative research. In later phases of the design process, quantitative research becomes a good complement to understand, for example, the breadth of potential adoption of a new solution.

STEP 1

IDENTIFY A DESIGN CHALLENGE

The foundation of HCD is a concise Design Challenge. This challenge will guide the questions you will ask in the field resesarch and the opportunities and solution you develop later in the process. A Design Challenge is phrased in a human-centered way with a sense of possibility. For example: "Can we empower first-time vegetable farmers through the right mix of products, services and know how?" or "How can we demonstrate the value of eyeglasses to children and their parents?"

TIP #1

The Design Challenge can be decided by leadership or can be developed through a team-based approach. In either case, begin by identifying challenges your organization is facing or springboard off opportunities you are interested in exploring. Narrow this list down to one specific design challenge.

WATCH OUT

The challenge you choose may be related to technology adoption. This might lead to framing a design challenge that is technology- or organization-focused, such as "How can we get farmers to adopt artificial insemination?"   Instead, to act as a springboard to the innovation process, the challenge should be re-framed in a more human-centered way, such as "How can we support farmers in expanding their breeding practices?"

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A good Design Challenge should be:
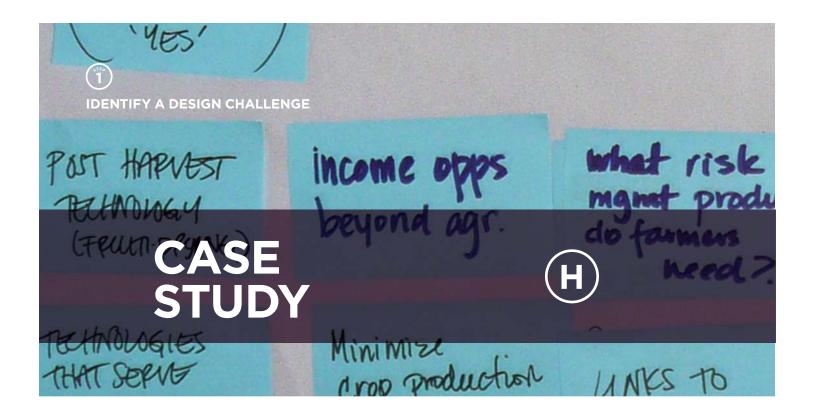
TIP #2

» Framed in human terms (rather than technology, product, or service functionality)

» Broad enough to allow you to discover the areas of unexpected value

» Narrow enough to make the topic manageable

TRY

Start the design challenge with an action verb such as "Create", "Define", "Adapt", etc. Or phrase the challenge as a question starting with: "How can...?"

CASE STUDY

(H)

In Ethiopia, the design challenge was defined through a series of different steps. First a small core team – the country director and corporate staff — determined a set of criteria and short list of important challenges.

Armed with this information, the country director and design team developed a set of criteria for the design challenge. This criteria was:

» Limited enough to complete the challenge in 3-4 days

» Focused on farmer needs

» Broad enough discover what is desirable to farmers

Next, the team listed all the challenges they wanted to pursue. The country director then gave the team some information about the conversation between the core team which helped to focus the choices. Referring back to the criteria the team developed, the challenges were narrowed through a democratic vote. The top three were:

» What can we offer farmers who don't have enough rainwater access?

» What are the best ways to communicate IDE offerings to farmers?

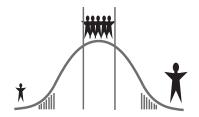» What makes farmers say yes?

The team discussed the possibilities and decided that the second and third were actually closely related. So the team re-phrased the Design Challenge to become: "Define the appropriate approach for reaching a larger number of smallholder farmers with IDE offerings."

After more discussion and a final vote, this challenge was selected.

🕐 **Time:**
30-60 mins.

☆ **Difficulty:**
★★★☆☆

Step 1: Develop the spectrum along which to recruit. Generate several options (i.e. High income to low income, early adopter to risk averse, large landholder to landless). Individually or collectively narrow to one or two relevant spectrums to make sure "extremes" are covered in the research.

Step 2: Identify the relevant locations to recruit participants. Ask stakeholders to list good areas conducive for this research. Pick 2-5 field sites that vary from one another (i.e. a wealthy and a poor village or a site in a central district and one more remote).

Step 3: Select appropriate community contacts to help arrange community meetings and individual interviews. Make sure community contacts include men & women.

STEP 2

IDENTIFY PEOPLE TO SPEAK WITH

Recruiting appropriate and inspirational participants is critical. Attention to gender, ethnicity, and class balance is crucial for research.

For research meant to inspire new opportunities, it is useful to find people who represent "extremes." Extreme participants help to unearth unarticulated behaviors, desires, and needs of the rest of the population, but are easier to observe and identify because they feel the salience of these issues more powerfully than others. By including both ends of your spectrum as well as some people in the middle, the full range of behaviors, beliefs, and perspectives will be heard even with a small number of participants. Including this full range will be important in the later phases, especially in constructing robust frameworks and providing inspiration for brainstorming.

GENDER

Some communities may be resistant to male NGO staff interviewing women. Make sure female staff help recruit & interview women.

TIP

One-third of participants should be "model customers": those who are successful, adopt new technologies quickly, and/or exhibit desirable behaviors.

One-third of participants should be on the opposite extreme: those who are very poor, resistant to new technologies, and/or exhibit problematic behaviors.

One-third of participants should be somewhere in between: those who the researchers believe represent more "average" people.

WATCH OUT

Group sessions are a great springboard to identify participants for the individual interviews. However, communities often want to showcase only model customers or male customers to NGOs.

TIP

To satisfy the economic spectrum from the more well off to the very poor, you might ask:

» "Can you introduce me to a family who cannot afford to send their children to school?"

» "Who has not been able to afford maintenance or repairs to their home?"

» "Who has experienced a recent setback (medical problems, bad harvest, etc)?"

Refer to the Field Guide (p. 3) to help guide your recruiting.

STEP 3

CHOOSE RESEARCH METHODS

Design research is useful to not only understand individuals but also frame individual behaviors in the context and community that surrounds them. Therefore, it will be important to employ many methods of research.

In addition to the methods described in this book, secondary sources and quantitative data can be supplemented to understand income or asset variances across different regions. Three qualitative methods described here are:

» Individual Interview
» Group Interview
» In Context Immersion

Facilitator Notes

🕐 **Time:**
60-90 mins.

☆ **Difficulty:**
★★☆☆☆

Step 1: After your team has written the Interview Guide (see Step 4), practice the individual interview by partnering in teams of two. One person plays the role of the interviewer and the other the interviewee. Ask the teams to go through a "practice interview" with their partner.

Step 2: Ask the team what they learned through this exercise. Are there any topics or questions that are missing?

METHOD:
INDIVIDUAL INTERVIEW

Individual interviews are critical to most innovation research, since they enable a deep and rich view into the behaviors, reasoning, and lives of people. If possible, arrange to meet the participant at his/her home or workplace, so you can see them in context. In-context interviews give the participant greater ease and allow you to see the objects, spaces, and people that they talk about in the interview.

⚠ **WATCH OUT**
If there are many people on the research team, no more than three people should attend any single interview so as to not overwhelm the participant and/or create difficulty in accommodating a large group inside the participant's home.

⇨ Refer to the Step 4: Develop an Interview Approach to create a set of questions for your individual interviews.
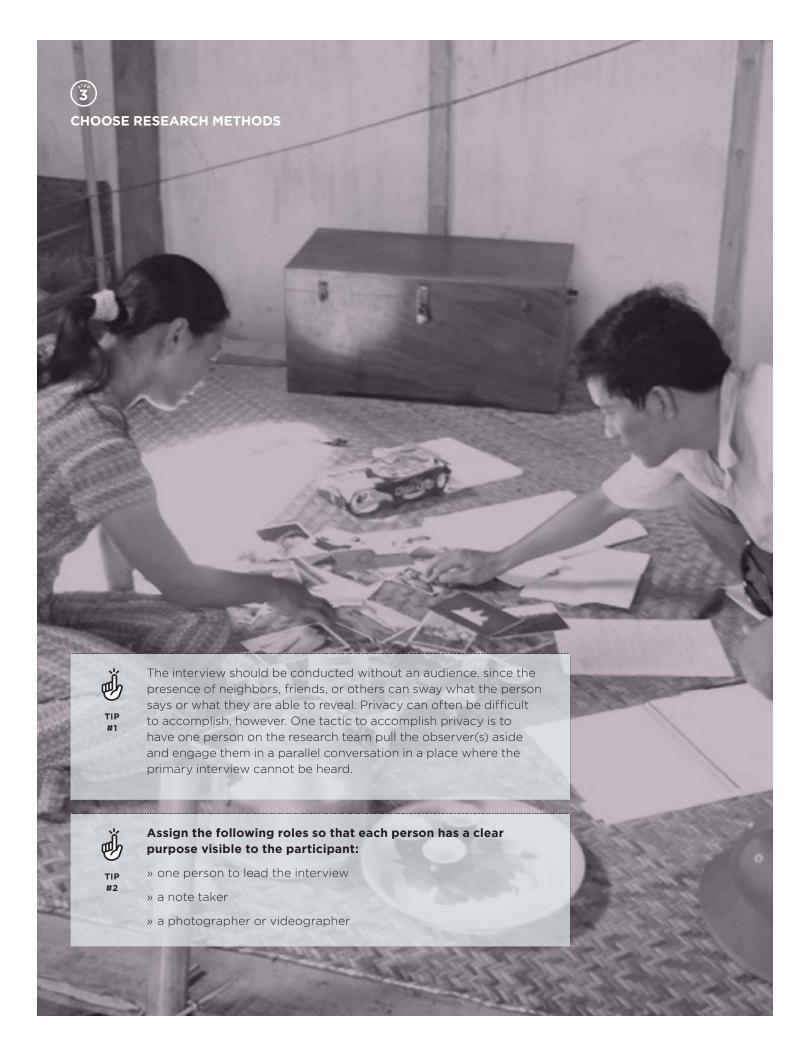
**TIP
#1**

The interview should be conducted without an audience, since the presence of neighbors, friends, or others can sway what the person says or what they are able to reveal. Privacy can often be difficult to accomplish, however. One tactic to accomplish privacy is to have one person on the research team pull the observer(s) aside and engage them in a parallel conversation in a place where the primary interview cannot be heard.

**TIP
#2**

Assign the following roles so that each person has a clear purpose visible to the participant:

» one person to lead the interview

» a note taker

» a photographer or videographer

METHOD:
GROUP INTERVIEW

Group-based interviews can be a valuable way to learn about a community quickly. Group interviews can be good for learning about community life/dynamics, understanding general community issues, and giving everyone in a community the chance to voice their views.

Group interviews are not good for gaining a deep understanding of individual income streams, uncovering what people really think, or understanding how to change commonly-held beliefs or behaviors.

Facilitator Notes

Time:
1.5-2 Hours

Difficulty:
★★★☆☆

Step 1: After the team develops a Group Interview Guide (see Step 4), have the team partner in groups of two for a practice interview. Ask the interviewers to develop an approach for including women and quieter members of the group. Ask them also to develop strategies for asking people who may be dominating the conversation to allow other people to answer.

Step 2: Have the team share "best practices" for including quieter members of the group and redirecting the conversation away from people who are dominating the conversation.

TIP #1

Guidelines for group meetings:
Size: 7-10 people from diverse economic backgrounds

Place: Meet on neutral ground in a shared community space that all people have access to (regardless of age, gender, status, race).

Gender: Mixed or same-sex groups depending on the customs in that community (if men and women should meet separately, two facilitators can run the groups in parallel).

Age: Mixed groups of parents and teens/children, depending on the topic and local context.
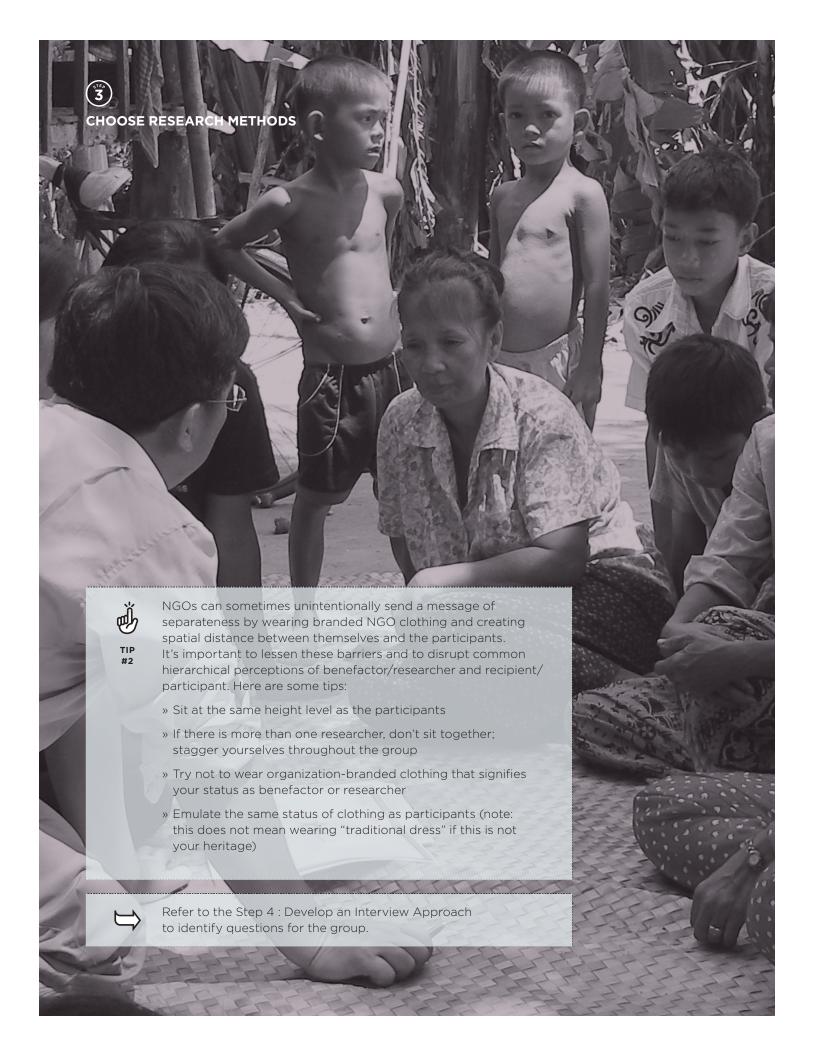

WATCH OUT

Are the viewpoints of men and women equally valued in this community? If not, it may make sense to have two meetings, one with women only and one with men only.

Are political heavyweights (such as chiefs, local administrators, etc) present? If so, their opinions may hamper the ability of others to speak freely.

Does the community view your organization as a source of funds, gifts, or charity? If so, their interactions may be influenced by the desire to access potential benefits; it may be helpful to prepare an introduction that makes the purpose of the interview clear and state that nothing will be given away.

TIP
#2

NGOs can sometimes unintentionally send a message of separateness by wearing branded NGO clothing and creating spatial distance between themselves and the participants. It's important to lessen these barriers and to disrupt common hierarchical perceptions of benefactor/researcher and recipient/participant. Here are some tips:

» Sit at the same height level as the participants

» If there is more than one researcher, don't sit together; stagger yourselves throughout the group

» Try not to wear organization-branded clothing that signifies your status as benefactor or researcher

» Emulate the same status of clothing as participants (note: this does not mean wearing "traditional dress" if this is not your heritage)

Facilitator Notes

🕐 **Time:**
2-4 Days

☆ **Difficulty:**
★★★★☆

Step 1: To plan a homestay, identify families willing to host a researcher for one-to-three nights in their home. Depending on local customs, level of safety, and language barriers, team members can stay in homes individually or partner up in groups of two to three people.

Step 2: Make sure the team understands that the goal of this exercise is to see how people live day-to-day. Advise your team not to bring elaborate gifts, food, or alcohol to the homestay. Of course, a small gift of ordinary household supplies or help with normal family expenses is perfectly fine.

Step 3: Tell teammembers to participate with the family in their normal routines. Ask the team to spend time with and talk to the men, women, and children in the household. It's important to see how the household works from all these different perspectives.

METHOD:
IN CONTEXT IMMERSION

Meeting people where they are and immersing yourself in their context reveals new insights and unexpected opportunities.

Human-Centered Design works best when the designers understand the people they are designing for not just on an intellectual level, but also on an experiential level. Try to do what your customers do and talk to them about their experience of life in the moment.

GENDER

On a project in rural India, people said that cultural tradition prevented women from touching men who are not immediate family members. However, by spending several days in a village, the team observed that there were many instances in which trained or uniformed women doing specific jobs were able to touch men without any serious problems. These gaps between what people say and what they do are not bad. In fact, seeing these differences may highlight new opportunities; for example, designing a new medical service offering that could be provided by uniformed women.

TRY #1

Work Alongside
Spend a few hours to a few days working with a farmer. By experiencing the business and activity firsthand, you may gain better understanding of their needs, barriers, and constraints.

TRY #2

Family Homestay
Ask a farming rural to host 1-2 team members for a few nights in their home. Staying for a few nights allows the family to gain comfort and act naturally. After the second night, very few people can maintain a "show" for guests, and the understanding and empathy the team will gain will increase the longer you stay in one place.

IN CONTEXT

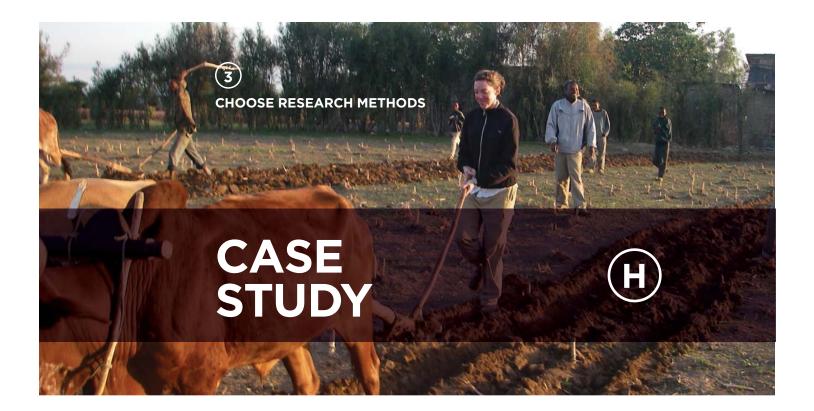**What people say (and think) they do and what they actually do are not always the same thing.**
With no intent to mislead you, people often have strong beliefs about what they do on a daily basis that differs from what they actually do. The goal is not to correct or point out the misperception, but rather to understand the difference.

Putting yourself in someone's shoes enables you to get beyond what people say to what they think and feel.
Being in-context means gaining true empathy through being with people in their real settings and doing the things they normally do. This kind of deep immersion gives us Informed Intuition that we take back with us to design solutions. We begin to take on the perspective of the interview participant which enables us to make design decisions with their perspective in mind. Of course, we always go back into the field and get feed-back from the source to see if our Informed Intuition led us to the right choices.

Deep immersion shows commitment and staying power
Working with a farmer for a day in his or her field, living with a family for a few days or helping them bring their products to market are ways of showing your deep interest in the day-to-day lives of your participants. Trust is built over time and people feel at ease sharing their plans and hopes for the future. Many NGOs gain this depth of connection over many months of relationship building. Some techniques like the overnight stay described in the case study on the next page can accelerate this trust building.

CASE STUDY

(H)

OVERNIGHT STAY IN THE FIELD

The design team stayed overnight in Arsi Negelle, Ethiopia, where they plowed the family's fields the next morning. The overnight enabled the team to get beyond 'the script' and learn about one farmer's most itimate plans for the future.

They visited a farmer named Roba the first evening and once again the next day.

When they first met Roba, he portrayed an overall sense of hopelessness. He described things that happened TO him, in particular the government's recent land redistribution. Some farmers received land in the irrigated area near the lake. Some did not. He was in the latter group.

The next day, he was shocked to discover that the team was still there. His demeanor had changed completely. He knew the team was committed. This time, he shared that in fact he did have a plan for pulling his family out of poverty. If he could secure a $200 USD loan, he would first buy an ox so he wouldn't have to trade two days of his own labor to borrow a neighbor's. Then he'd rent a piece of land in the irrigated territory and purchase improved seed...He no longer viewed the team as a wealthy NGO who was there to provide a free gift, but rather a partner in how he could take command of his own future.

STEP 4

DEVELOP AN INTERVIEW APPROACH

Interviewing is an art that balances the dual needs of getting relevant information from the customer and engaging with them as a curious and empathetic friend. Intentionally developing your strategy for interviewing is key to managing this balance. Here we include three interview methods that may help you to develop the interview approach right for you:

» Interview Gude
» Sacrifical Concepts
» Interview Techniques

METHOD:
INTERVIEW GUIDE

The semi-structured interview is a key method of enabling dialogue and deep engagement with participants while retaining focus on a particular topic. Thoughtful structuring of the interview questions will take the participant on a mental journey from the specific to the aspirational to the actionable.

⇨ Create your own in your Interview Guide at the back of your Field Guide based on model below.

TIP

OPEN SPECIFIC
Warm up the participant with questions they are comfortable with.
1. Family and land
2. Who does what in the household?
3. Stories of recent past

GO BROAD
Prompt bigger, even aspirational, thinking that they may not be accustomed to on a daily basis.
4. Aspirations for the future
5. System-based questions

PROBE DEEP
Dig deeper on the challenge at hand & prompt with 'what if' scenarios.
6. Income sources
7. Questions specific to innovation challenge
8. Sacrificial Concepts

Facilitator Notes

🕐 **Time:**
1-2 Hours

☆ **Difficulty:**
★★★★☆

Step 1: Generate a list of topics related to your design challenge to cover in field research.

Step 2: Sort the topics based on what are the main categories and sub-categories.

Step 3: Identify if any topics are specific to male or female activities.

Step 4: Break into groups of two. Take each main category and assign a group to generate a list of questions to ask in the field based on the topics listed in the main category.

Step 5: Have each group present their questions to the larger team and add any additional questions that may be missing.

Begin by brainstorming the topical areas you'd like to cover during the interviews, like

» sources of livelihood

» sources of information

TRY #1 » financing models

Use post-its to capture questions that respond to these topics. For 'sources of information,' one might ask:

TRY #2 » When you have a setback in your business, who do you go to for advice?

» Have you heard about new ways of farming in the past year? How have you heard about them?

Move the post-its around to sort the questions into a logical flow based on the sequencing of START SPECIFIC, GO BROAD then PROBE DEEP.

TRY #3

STEP
4

DEVELOP AN INTERVIEW APPROACH

SACRIFICIAL
FICIAL CO

METHOD:
SACRIFICIAL CONCEPTS

Scenario-based questions or Sacrificial Concepts can help make
hypothetical or abstract questions more accessible. A sacrificial
concept is an idea or solution created to help understand the issue
further. It is a concept that doesn't have to be feasible, viable, or
possible since its only purpose is deeper understanding.

👆

TIP

Abstract concepts difficult to answer for many people include:

» Questions about risk, insurance, and guarantees

» Questions about trade-offs

» Questions about return on investment

DEVELOP AN INTERVIEW APPROACH
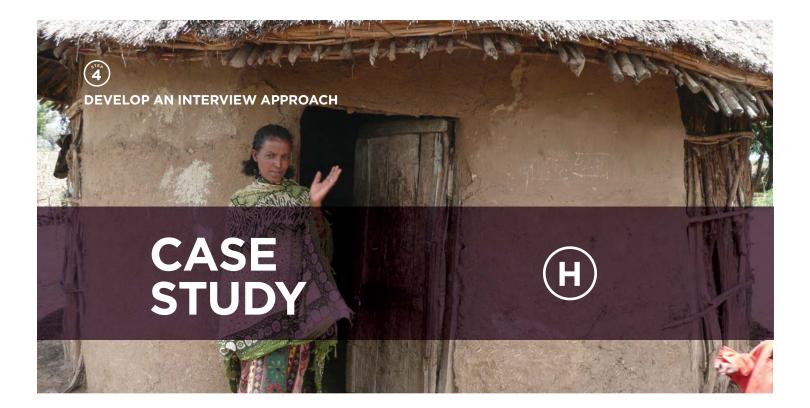
CIAL CONC
CONCEPTS

> **Make a question less abstract by creating a Sacrificial Concept:**
>
> **TRY**
>
> Instead of asking: "How much would you pay to reduce the risk of purchasing new technology?"
>
> Propose two scenarios for the participant to choose from: "If you had a choice between two new technologies that could improve your farm output. The first technology costs 1,000 and comes with no guarantee. The second costs 1,500 and comes with a guarantee that by the second harvest, your farm output will double or else we will come back, take the technology away, and give you back your 1,500. Which option would you prefer?"

CASE STUDY

(H)

SACRIFICAL CONCEPT

Often a sacrifical concept can shake our assumptions about what is and is not desirable to people.

For example, Shashu, an Ethiopian divorcee with two children, said that she had to sell her only calf for 600 Birr and borrow 100 Birr from family members in order to purchase a 700-Birr treadle pump for vegetable irrigation. She said she was 'fed up with poverty' and was willing to take this risk to get out of poverty.

Our assumption was that 700 Birr was already a hardship and we could not possibly ask a higher price. However, we used a sacrifical concept of an imaginary Offering B. We asked, "if you had the following two options, which would you chose and why:"

A: 700-Birr treadle pump with no guarantees.

B: 1000-Birr pump that came with a written guarantee to double your income in one year. If it did not double your income, your money would be returned to you and the pump would be taken away.

Shashu chose option B. She said the guarantee of knowing she would be okay in a year was worth the extra amount. Furthermore, she added that she would find a way to pull together the money somehow.

STEP
4

DEVELOP AN INTERVIEW APPROACH

Facilitator Notes

🕐 **Time:**
20-40 mins.

☆ **Difficulty:**
★ ☆ ☆ ☆ ☆

Step 1: Have the team split into groups of two, at least one person (Person A) in each team should have a mobile phone with them.

Step 2: Ask Person A to take out their mobile phone and explain to their partner (Person B) how they enter a new contact into the phone.

Step 3: Have Person B use the Show Me technique with Person A.

Step 4: Have Person B use the Five Whys technique with Person A.

Step 5: Ask the team to come back together and ask: "What kind of information did you get from using Five Whys?" Then ask: "What kind of information did you get from using Show Me?"

METHOD:
INTERVIEW TECHNIQUES

Through telling stories, human beings reveal important issues and opportunities in our daily experiences. We have found that what people say they do and what they actually do are often not the same thing. This is why we don't just rely on asking straightforward questions in an interview. Here are a few techniques for collecting rich stories in an interview.

✏️

TRY

Begin with a simple example, like how someone uses a mobile phone. Partner up and ask your partner to begin with a SHOW ME of how they entered the last contact into their address book. Next move on to the FIVE WHYS technique with your partner. Ask them to tell you about the last contact they entered into their phone book and then five consecutive Why? questions.

💬

DISCUSS

Compare and contrast the type of information you get from the different techniques. Let this inform your questioning techniques in the field.

SHOW ME

If you are in the interviewee's environment, ask her to show you the things they interact with (objects, spaces, tools, etc). Capture pictures and notes to jog your memory later. Or have them walk you through the process.
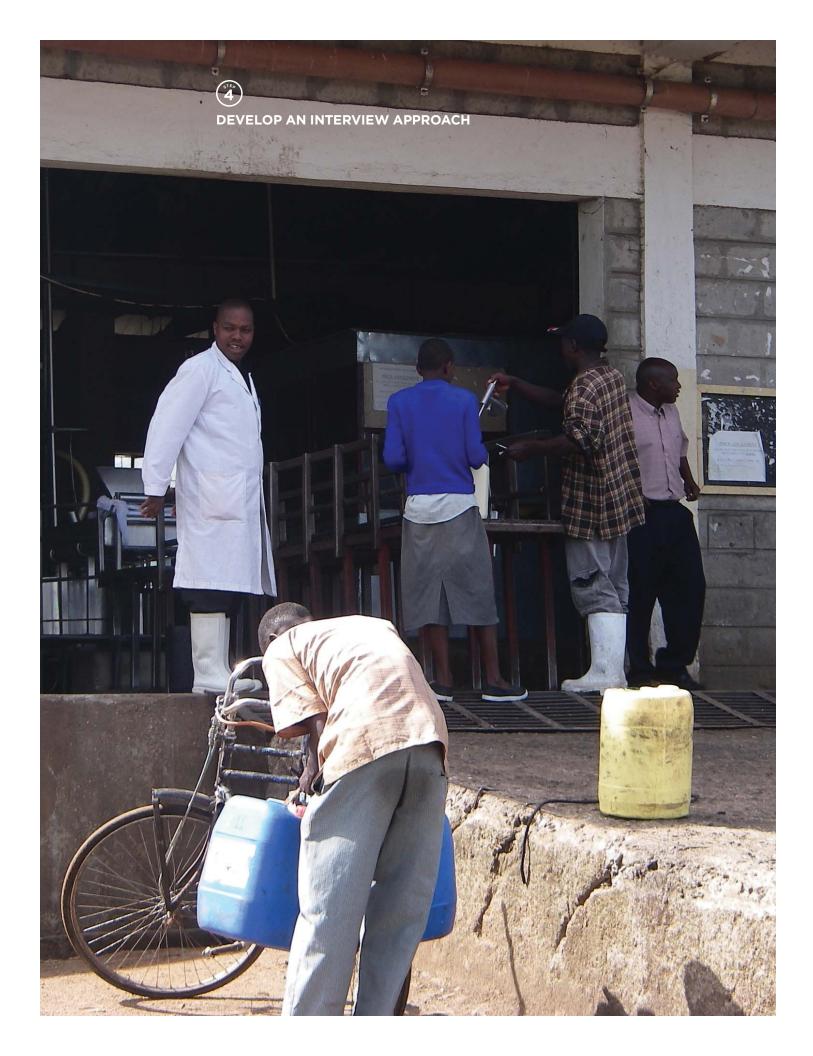
DRAW IT

Ask participants to visualize their experience through drawings and diagrams. This can be a good way to debunk assumptions and reveal how people conceive of and order their activities.

5 WHYS

Ask "Why?" questions in response to five consecutive answers. This forces people to examine and express the underlying reasons for their behavior and attitudes.

THINK ALOUD

As they perform a process or execute a specific task, ask participants to describe aloud what they are thinking. This helps uncover users' motivations, concerns, perceptions, and reasoning.

STEP 5

DEVELOP YOUR MINDSET

The exercises listed under this step are valuble to put you in the right frame of mind for research. It is often difficult, but very important, for experts and professionals to put aside what they know when they conduct research. Keeping an open mind without denying your existing knowledge takes practice. The two exercises here can provide you with this practice before you go into the field:

» Beginner's Mind
» Observe vs. Interpret

MINDSET:
BEGINNER'S MIND

Beginner's Mind is critical when entering a familiar environment without carrying assumptions with you that are based on prior experience. This is often very hard to do since we interpret the world based on our experience and what we think we know. This lens of personal experience can influence what we focus on and can make us unable to see important issues.

🖉

TRY

Here is one exercise to learn how to see the world through the eyes of a Beginner. Look at the photo on the opposite page and answer the following questions:

» What stands out to you? What is happening?

» What personal experience did you draw on when you looked at the picture?

» How could you look at the photo as a Beginner, without making assumptions about what is happening?

» What questions would you ask if you knew nothing about the context or activity of the people in the photo?

⚠

WATCH OUT

Remind yourself frequently of the need to approach your Design Challenge with Beginner's Mind, especially when you are in the field conducting research.

Facilitator Notes

🕐 **Time:**
20-40 mins.

☆ **Difficulty:**
★ ★ ★ ★ ★

Step 1: Ask the design team to look at the photo and identify what stands out to them. Note when people explain behaviors based on personal assumptions (i.e. "The man in the white lab coat seems to be the manager").

Step 2: Ask what past experience led to this explanation.

Step 3: Use 'opposite logic' to question the assumption the person has made (i.e. "Wouldn't those wearing lab coats need to be most sterile and therefore working closest with the machinery, not supervising?)

Step 4: Ask how the interpretation would change if a new piece of information were introduced (i.e. "What if I were to tell you that in this place white is the color that servants wear? How would you view this scene differently?").

Step 5: Ask the design team what they have learned from this exercise.

Step 6: Stress the importance of going into research with a "Beginner's Mind" and asking questions that you think you might already know the answers to, because you may be surprised by the answers.

MINDSET:
OBSERVE VS. INTERPRET

Building empathy for the people you serve means understanding their behavior and what motivates them. Understanding behavior enables us to identify physical, cognitive, social and/or cultural needs that we can meet through the products, services and experiences we create. This exercise helps us differentiate between observation and interpretation of what we see, revealing our biases and lenses through which we view the world.

Use the photo on the opposite page to practice making the distinction between observations and interpretations.

TRY

WHAT DO YOU SEE HAPPENING IN THIS IMAGE?
Describe only what you see, don't interpret yet.

WHAT IS THE REASON FOR THIS BEHAVIOR?
List five different possible interpretations for why this person's behavior.

HOW WOULD YOU FIND OUT THE REAL ANSWER?
List five questions you could ask her to determine which interpretation is correct.

Facilitator Notes

🕐 **Time:**
20-40 mins.

☆ **Difficulty:**
★★☆☆☆

Step 1: Ask the team "What do you see happening in this image?" Listen for responses that have built-in interpretations and remind people to describe only what they see at this point.

Step 2: Ask "What might be the reason for this behavior?" and have the team generate at least five different interpretations about why this might be happening.

If people are stuck, throw out an idea like : "This person is displaying her clothes to her neighbors as a sign of wealth by hanging them in a public space."

Step 3: Ask "What questions would you ask to find out the real answer?" and make a list of the questions that would help your team discover the right interpretation for an observation.