

HASSO PLATTNER
Institute of Design at Stanford

A D.SCHOOL

DESIGN PROJECT GUIDE

This guide describes a cycle through a human-centered design process. It focuses on the front-end of a project: Discover new opportunities, better understand those for whom you are designing, and develop new potential concepts. Consider this as a useful guide to your first 20-100 hours of work on a project.

Written by Thomas Both, building on the work of many at the d.school. Many concepts come particularly from techniques advanced with Perry Klebahn and Jeremy Utley. Thanks to Perry Klebahn for collaboration on the content and organization of this guide.

Photos on pages 6, 38, 46, and 56 by Patrick Beaudouin.

A Project-Doing Guide

A guide to dig into a challenge

This guide discusses the techniques and attitudes of design to advance you from an open-ended challenge, to a place with new insights, ideas, and prototypes. It is intended for someone with some experience using a human-centered design approach (perhaps in a learning orientation), and now working on a real project.

The aim of the guide is to provide specific and understandable instruction, while remaining adaptable to varied situations. Use the sections you find valuable, and adapt it to your needs. This guide is by no means exhaustive. It highlights a selection of techniques—of course there are many more and many ways to navigate a project.

The ***Bootcamp Bootleg*** (dbootleg.stanford.edu) is a companion to this guide, providing detailed explanation of techniques referred to here.

A guide for human-centered design

The guide assumes you have a challenge that would benefit from human-centered design (HCD), particularly:

You aim to better understand the people for whom you are designing;

You want to work in an action-oriented way (getting away from your desk and out in the world);

You aim to work both on “problem-finding” (discovering the meaningful opportunity), as well as problem-solving; and

The end solution is not yet dictated.

For more about using HCD and scoping a project, see the *Design Project Scoping Guide*.

Three design practice tenets:

FIND YOUR STYLE

This guide explains some practices that have been beneficial – but every situation and person is different. Stretch yourself to try new approaches, but also *be yourself and lean into your own style*. Adapt these tools to your own practice.

DESIGN YOUR DESIGN PROCESS

Process isn't a static formula for innovation. Your process, itself, is to be iterated, experimented, and innovated. Do this by trying tools and approaches, and then reflecting back on how you worked.

COLLABORATE AS YOU WORK

Collaboration is a hugely valuable asset for innovation. Many of the techniques in this guide benefit greatly from collaboration, either working as a constant team throughout or working as an individual but bringing in a partner/team at certain stages. At the same time, working as an individual has advantages. Balance the collaborative power of the team with the nimbleness and practicality of individual work.

Interviewing



Interviewing

Understanding the people for whom you design is the foundation for your work. Gaining empathy also often serves as a guiding compass throughout a project.

The goal of interviewing:

Gain a deep understanding of a number of users' beliefs, values, experiences, behaviors, and motivations – transmitted via stories.

Process Essentials:

Get users to tell stories and share emotions.

Capture notes full of details and quotes from each interview.

Learning Objectives:

Practice truly listening and picking up on comments to dig into.

Test your assumptions and move beyond judgment.

Assume a beginner's mindset, and be willing to ask questions to which you may feel you know the answer.

Prepare:

Take a posture of learning

The goal is to seek understanding. It can help to air and acknowledge assumptions up front, and then identify questions that can test those assumptions.

Create a rough interview guide

Start by writing some starter questions. Move away from fact-finding questions toward soliciting stories. You can identify themes and rearrange questions to create an ideal arc to the conversation. Remember this is only a rough question list – while interviewing follow the flow of the conversation.

Find users

The best option is to get out of the office and engage users in their own environment. Alternatively, you could bring users in to be interviewed.

It is okay to stumble

If you are new to design research, expect your first couple of interviews to be rough. Don't worry – that is normal. Just jump in, and keep practicing.

Roles:

It can be overwhelming to an interviewee to have a bunch of people all lobbing in questions at the same time or in rapid succession. Assign roles to prevent this. If you have a large team, break into interviewing groups of two (or three).

Suggested roles:

Lead Interviewer

Leads the conversation, and maintains the connection with the interviewee.

Scribe and Back-up Interviewer

Takes copious notes and also chimes in to follow up on interesting threads missed by the lead.

These roles can rotate after each interview, for the sake of your own learning, and for the diversity of perspective.

If you are alone, it is recommended to audio record the interview, so you can focus on the conversation..

Capture:

Good notes are key

It is very important to move into synthesis with a wealth of human “data,” so make sure that you take lots of notes during interviews. The lead in each interview will take very few notes – so it is important his or her partner takes very good notes with details and quotes.

It's also a great idea to get a couple of photos of your users and the surrounding area you've engaged them in. You can also record video or audio, but realize that reviewing that recording will take a significant amount of time.

Doing It:

THE BASICS

Use these four keys to good interviewing:

Ask open-ended questions

**Dig for meaning
(Asking ‘why?’)**

Follow unexpected threads

Seek stories

STEP-BY-STEP

1. Greet and build rapport

Start by introducing yourself. Establish a conversational tone. Make eye contact, and match the postural height of your interviewee.

2. Get into the interview

Use your interview guide to help structure the conversation, and act as your signposts for topics you want to cover. However, follow the interviewee’s lead; s/he will talk about the things s/he cares about most — allow the conversation to deviate from your plan.

3. Use good technique

Make sure you are covering the basics: open-ended questions, asking ‘why?’, and digging into meaning by following up. This means staying on one thread (one topic or story) for a long period of time and not jumping around by asking wholly new questions.

The interviewer should not fill more than 25% of the airtime. Make sure you give people time to answer and time to consider their answers.

For rich data, you should have multiple interviews of 20-60 (or more) minutes.

FURTHER TECHNIQUES

Seek extreme users

Find and interview extreme users.

RELATED METHOD CARDS

The basics:

Interview Preparation
Interview for Empathy

Further techniques:

Extreme Users
Analogous Empathy

Watch out for . . .

Leading the witness

Many inexperienced interviewers will ask loaded questions, or questions that suggest the “right” answer. Instead, ask open-ended questions.

Silence is not a sign of a bad interview—it is in fact often helpful: users will typically fill the void with interesting new information.

Asking for the “usual” experience

People are terrible at gauging “average” experiences—instead of asking “what usually happens . . .” or “when do you usually...” ask about “the last time,” and extremes like the best, the worst, the last, and the most memorable.

Not following up

Users will often make very interesting statements that you may overlook as unimportant or irrelevant—however there may be much to learn from these unexpected parts of the conversation. Make sure that you are not so wedded to the interview plan that you aren’t willing to diverge when an important theme emerges. You can also always make a note, and come back to the topic later in the conversation (“A few minutes ago you said . . . Could you tell me more about that?”)

Assuming what the answer means

Many times a user will say something that appears familiar, but actually means something very different. Always ask users to elaborate on their responses, particularly when they express an emotion or belief.

It’s going well when . . .

The interviewee is talking openly, and is sharing stories, memories, and feelings.

You’re discovering unexpected aspects of the problem space.

You instinctively notice and follow up on a promising comment/direction.

METHOD

INTERVIEW PREPARATION



WHY prepare for an interview

Time with users is precious; you need to make the most of it! While you must always allow room for the spontaneous, blissful serendipity of a user-guided conversation, you should never abdicate your responsibility to prepare for interviews. Especially in following up with users (after testing, etc.), it is imperative to plan your interviews. You may not get to every question you prepare, but you should come in with a plan for engagement.

HOW to prepare for an interview

Brainstorm questions

Write down all of the potential questions your team can generate. Try to build on one another's ideas in order to flesh out meaningful subject areas.

Identify and order themes

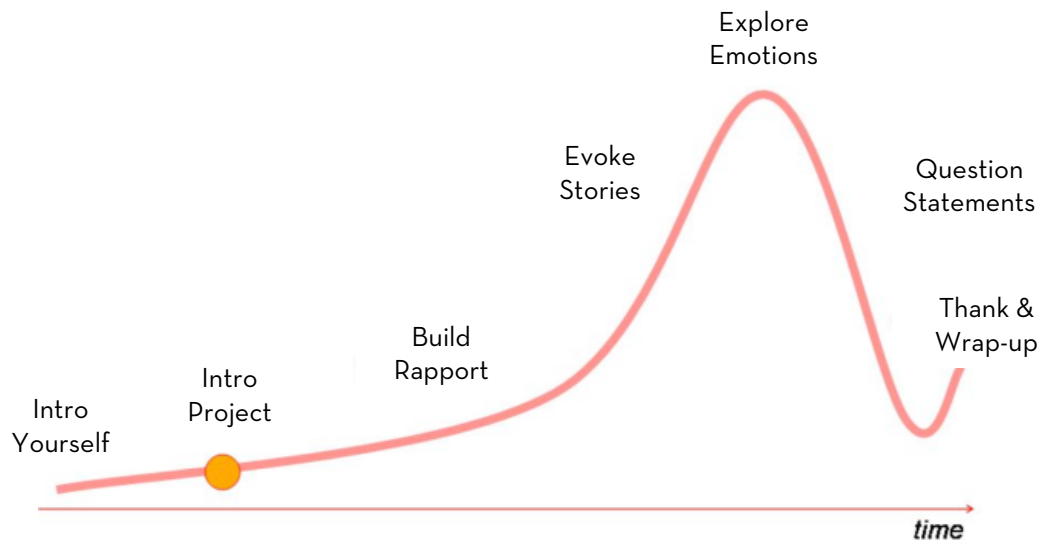
Similar to "grouping" in synthesis, have your team identify themes or subject areas into which most questions fall; once you've identified the themes of your question-pool, determine the order that would allow the conversation to flow most naturally. This will enable you to structure the flow of your interview, decreasing the potential for hosting a seemingly-scattershot interaction with your user.

Refine questions

Once you have all the questions grouped by theme and order, you may find that there are some redundant areas of conversation, or questions that seem strangely out of place. Take a few moments to make sure that you leave room in your planning to ask plenty of "why?" questions, plenty of "tell me about the last time you ___?" questions, and plenty of questions that are directed at how the user FEELS.

METHOD

INTERVIEW FOR EMPATHY



WHY interview

You want to understand a person's thoughts, emotions, and motivations, so that you can determine how to innovate for him or her. By understanding the choices that person makes and the behaviors that person engages in, you can identify their needs, and design to meet those needs.

HOW to interview

Ask why. Even when you think you know the answer, ask people why they do or say things. The answers will sometimes surprise you. A conversation started from one question should go on as long as it needs to.

Never say "usually" when asking a question. Instead, ask about a specific instance or occurrence, such as "tell me about the last time you ___"

Encourage stories. Whether or not the stories people tell are true, they reveal how they think about the world. Ask questions that get people telling stories.

Look for inconsistencies. Sometimes what people say and what they do are different. These inconsistencies often hide interesting insights.

Pay attention to nonverbal cues. Be aware of body language and emotions.

Don't be afraid of silence. Interviewers often feel the need to ask another question when there is a pause. If you allow for silence, a person can reflect on what they've just said and may reveal something deeper.

Don't suggest answers to your questions. Even if they pause before answering, don't help them by suggesting an answer. This can unintentionally get people to say things that agree with your expectations.

Ask questions neutrally. "What do you think about buying gifts for your spouse?" is a better question than "Don't you think shopping is great?" because the first question doesn't imply that there is a right answer.

Don't ask binary questions. Binary questions can be answered in a word; you want to host a conversation built upon stories.

Make sure you're prepared to capture. Always interview in pairs. If this is not possible, you should use a voice recorder—it is impossible to properly engage a user and take detailed notes at the same time.

Synthesis



ALTHY / FRE
CUTS - T

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otherwise
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or cook...

RISE
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CABINETRY,
you want
SOLID CABINETS
300K - 39

B-FRIED
CALLS TO
FIND OUT HOW
DINNER

J... I
din/wk
w/dad

eat 2x week
in
dining room
(future)
1:03

1 time/
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- every
night

IT'S STARTING
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YOU'RE NOT
CAREFUL
48:30

IMPORTANCE OF
TOGETHERNESS

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(infrequently
(but)
likes it

I LOVE COOKING...
(USED TO COOK MORE)

I WAS COOKING
CHICKEN PARM
FROM SCRATCH...
(BEFORE CRABBY
JOB)
- I LIKE TO COOK
DECENT COOK

Fri/Sat/Sun
↓
↓
order our pastr

NOT
YOU'RE A
FIVE STAR CHEF,
BRING DOWN A
NOTCH
(REF 50)
38-39

BALANCE
HOMEY / STRE...

CATER -
WATER,
TP, PAPER CUPS,
DISH STUFF
once/month

TJ: 1/16h
CATER:

(ONCE A WEEK)

SHOP

buy the
same kind
of food each
week

I DON'T
HAVE
SP...

SHOP ONCE
A WEEK

KNOWS BRANDS, BUT
NOT WHY
NO INTEREST
IN FEATURES

"YEAH, ~~CONVENTIONS~~
CONVENTIONS
GREAT."

MUSIC
(57)

I WANT KITCHEN
BIG OPEN
ATTRACTIVE

SLEEP
MATTRESS
CANY
SITTING AREA
W/MATH

I WANT A
LOT OF LIGHT
AND I WANT
TO BE ABLE
TO CONTROL
LIGHT

I GROW UP IN
A REALLY NICE
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MY MOTHER
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Synthesis

Synthesize to find the meaning in your empathy work. Distill to a focused perspective and new insights that inform your work going forward.

The goal of synthesis:

Discover meaningful insights about people that you can leverage in creating new solutions.

Gain a new perspective on the challenge. Articulate your direction based on new findings.

Process Essentials:

Share stories from empathy work, and visually capture information via headlines, sketches, and photos.

Explore the meaning behind the “data” and develop insights.

Write statements or create frameworks that show your stance on a challenge worth solving.

Learning Objectives:

Practice storytelling and listening with an ear for meaningful details.

Probe for deeper understanding of human behavior and emotion.

Explore possibilities with a discovery mindset, without getting overly attached to ideas.

Practice focus and distillation, while retaining essence and intrigue.

Prepare:

Set the space for sharing

For storytelling, circle seats facing each other, with a whiteboard to the side. Provide post-its and pens. After storytelling, when working toward insights, have the team turn toward the board, perhaps standing.

Stay in exploration mode

For some, this work can trigger the impulse to analyze the information, deduce conclusions, and summarize findings. Avoid that approach. The objective is to explore possibilities and *infer* meaning – discovering more than what's at the surface. This requires a continued posture of curiosity.

Roles:

For each story your team recounts you will have the following roles:

Storytellers

[The team members who did the interview]

Recount empathy work to the team.

Headline Capturers

[All teammates]

Write headlines of each interesting part of the story on post-its. These roles will rotate to all members of the team while you unpack stories.

Later, when you work toward insights and a point-of-view statement, roles are homogenous across the team.

If you have more experience than your teammates, you will likely be a more active process facilitator during synthesis compared to other times. Lead process and work to elicit the output and sense-making from your team members.

If you are alone, use the same technique; listen to your recording of the interview or use your notes and move the information to headlines on post-its.

Capture:

Space saturate

The first part of synthesis will involve recounting the users' stories and getting that broken into pieces, visual, and on the board.

Distill to take-aways

Leave the session with actionable information: a few compelling insights, and an articulated statement or framework(s) that sums up your synthesis work.

It is important to actually write down your findings, not just think about it. Use complete sentences.

Doing It:

THE BASICS

Work with these goals in mind for good synthesis:

Seek meaning

Embrace inference

Distill, don't summarize

Retain tension and intrigue

STEP-BY-STEP

1. Recount stories

Everyone gets a post-it note pad and a pen. One person recounts an interview or observation, talking with level of detail you might use when telling a good story. This means digging into some of the intriguing details but not repeating every question and answer. If time is limited set up some boundaries (“Let’s start with the most compelling user we talked to . . .”). Teammates should add in their observations about the same user.

As the story is told, have everyone capture useful information as headlines, one per post-it. The headlines should be straight observations or quotes—but should not be simplified. For example: “Eats breakfast after arriving at work” or (quote) “Wheat germ freaks me out” is better than “Late breakfasts” or “No wheat germ.” Use simple sketches to capture findings too.

Team members should also ask each other questions—particularly ‘why’ questions—as you talk through the experience. The conversations this generates often yield the a-ha moments. Whenever someone expresses a belief herself or projects a belief on the user, that is a good opportunity to ask yourselves ‘why?’. (For example, “I think he really sees meals as a time to connect with people” – “Why do you think that is?”) Do some of this sense making even as you recount stories. Recount multiple interviews.

RELATED METHOD CARDS

The basics:

Story Share-and-Capture

Empathy Map

Point-of-View Madlib

Further Techniques:

Saturate and Group

Journey Map

2x2 Matrix

Doing It:

STEP-BY-STEP, CONT.

2. Capture headlines on post-its

While you are recounting empathy work, pause every couple minutes and have everyone place their post-its on the board. Do this quickly, but one headline at a time and have team members say it as they put them up.

You can use the User Empathy Map framework to scaffold this. The Empathy Map has four quadrants about the user: what they say, do, think, and feel. The format is designed to prompt thinking about deeper meaning, by challenging the designer to infer the *thinking* and *feeling* behind the observable *saying* and *doing*.

As you do this, it can be useful to note on the side “tensions”, “surprises”, and “contradictions” that you identify.

3. Infer insights

Once you have unpacked (retold and captured) your empathy stories, work to discover the insights. Refer back to the board you just created. Insights often follow from the tensions, contradictions, and surprises you noticed. You can use the phrase “I wonder if this means . . .” to prompt insight suppositions.

It can be useful to give a few minutes for team members to write down possibilities individually before coming back together as a team. Take the pressure off by making lists of possibilities, rather than just the “good” or “interesting” insights.

Encourage specific, even narrow, statements – do not try to capture everything by making broad statements. Your goal is to get to findings that alter the way you think about the challenge, and the prompt new ideas for solutions.

Combine elements into a point-of-view

For simpler projects, you can use a madlib to scaffold the creation of a perspective or a point-of-view (POV). The benefit of this madlib is it forces you to focus on one compelling user (type) and one direction to explore.

WE MET . . .

WE WERE AMAZED TO DISCOVER . . .

WE WONDER IF THIS MEANS . . .

WE AIM TO (HELP OUR USER) . . .

Choose the most compelling insight (“We wonder if this means . . .”) as the centerpiece of your point-of-view, and build around it. You are working to create an actionable statement, by writing the four sentences.

Once you have a combination that captures your current perspective, rewrite the whole phrase on the board. Use the whiteboard to your advantage: focus efforts on improving what’s on the board rather than spinning out. Keep working at it until you arrive at a specific, compelling, and intriguing statement, which captures an important part of the empathy you have gained and turns it into an actionable challenge.

FURTHER TECHNIQUES

Synthesis by grouping

Another board technique to aid synthesis is *Grouping*. This technique can take longer, but often yields greater depth of insights.

Multi-faceted findings

For more complex projects (multiple stakeholders, user types, user needs, etc.), you may end with more nuanced set of findings (not just a POV statement); for example, a number of sharply articulated insights and a user group, or multiple user archetypes, and/or a framework that shows your stance.

Watch out for . . .

Sticking to the facts

Synthesis can too easily veer into summarizing *knowns*. Instead you need to be imagining possibilities. If you are not inferring (taking leaps of informed assumptions) then you are not pushing to find the meaning in your empathy work.

Jumping to (and clinging to) a solution

This work is bound to spur some solution ideas. That's great. The trouble is when you can't let it go. Use a "Solutions Parking Lot" – a board space where you write down the ideas that come up so you don't forget them. Doing so allows you to put them aside for now, and focus on understanding of your users first.

The all-encompassing point-of-view

A typical response to creating a point-of-view is to broaden it as much as possible to capture all the things you discovered about your users. But a point-of-view that is all things to all people is not very useful in directing the design team, and tends to yield unremarkable solutions. Instead, write multiple narrow point-of-views that, together, cover the ground. Then pick one that is a powerful direction to take, or intention pursue multiple (specific) paths going forward.

It's going well when ...

You are excited about the things you are talking about; you feel you are realizing something new.

For the majority of the session you feel like you are exploring, not deciding.

The whole team is coalesced around and excited about your discoveries and your perspective on the challenge.

Tips for insights and perspectives

Your findings coming out of synthesis represent a specific stance, and is a deliverable as important as your solution concepts. In that spirit, here are some (usually true) rules-of-thumb for good insights and point-of-view statements:

Hold tension

A good POV or insight should intrigue anyone who hears it. Identify and build from contradictions and disconnects. A simple device that can help is introducing the word “but” in POV/insight phrasing.

Keep it specific

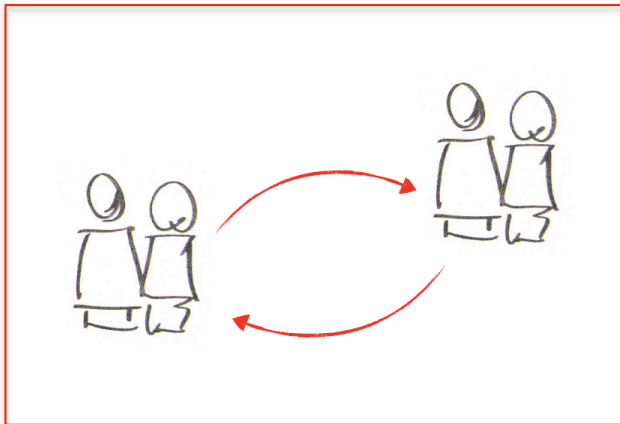
You worked hard to dig into the nuances of your users’ emotions and behavior. Don’t make the mistake of re-generalizing your findings into a perspective that you could have drafted before the project even started.

It doesn’t have to be perfect

Particularly for a first pass: it is better to get an strong stance capturing new understanding, that spurs great ideation rather than trying to get the wording perfect. In fact, in the worst case, the effort to perfect a POV can dull the edge of your insights.

METHOD

STORY SHARE-AND-CAPTURE



WHY story share-and-capture

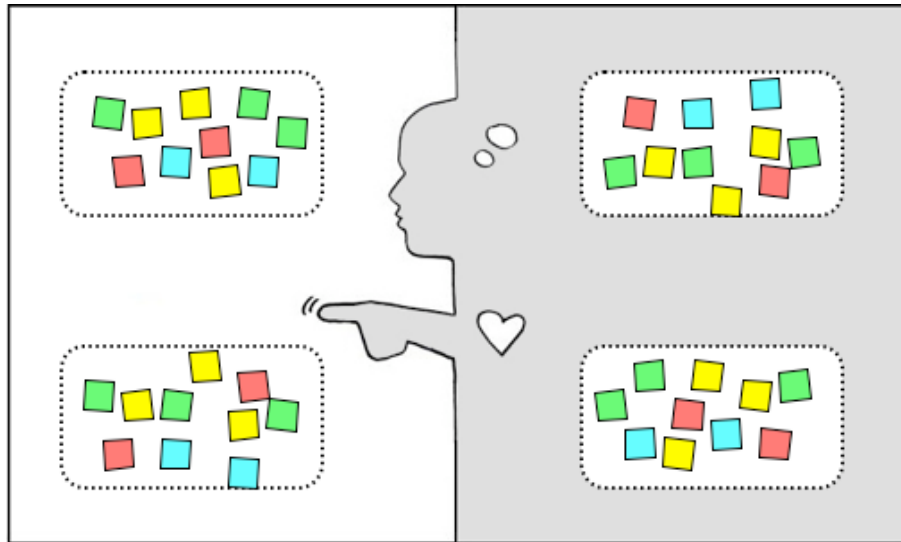
A team share serves at least three purposes. First, it allows team members to come up to speed about what different people saw and heard in the field. Even if all the team members were present for the same fieldwork, comparing how each experienced it is valuable. Second, in listening and probing for more information, team members can draw out more nuance and meaning from the experience than you may have initially realized. This starts the synthesis process. Third, in capturing each interesting detail of the fieldwork, you begin the space saturation process.

HOW to story share-and-capture

Unpack observations and air all the stories that stick out to you about what you saw and heard during your empathy fieldwork. Each member in the group should tell user stories and share notes while other members headline quotes, surprises, and other interesting bits – one headline per post-it. These post-its become part of the team’s space saturation, and can also be physically grouped to illuminate theme and patterns that emerge (See “Saturate and Group” method card). The end goal is to understand what is really going on with each user. Discover who that person is and what that person needs in regard to your problem space.

METHOD

EMPATHY MAP



WHY use an empathy map

Good design is grounded in a deep understanding of the person for whom you are designing. Designers have many techniques for developing this sort of empathy. An Empathy Map is one tool to help you synthesize your observations and draw out unexpected insights.

HOW to use an empathy map

UNPACK: Create a four quadrant layout on paper or a whiteboard. Populate the map by taking note of the following four traits of your user as you review your notes, audio, and video from your fieldwork:

- SAY: What are some quotes and defining words your user said?
- DO: What actions and behaviors did you notice?
- THINK: What might your user be thinking? What does this tell you about his or her beliefs?
- FEEL: What emotions might your subject be feeling?

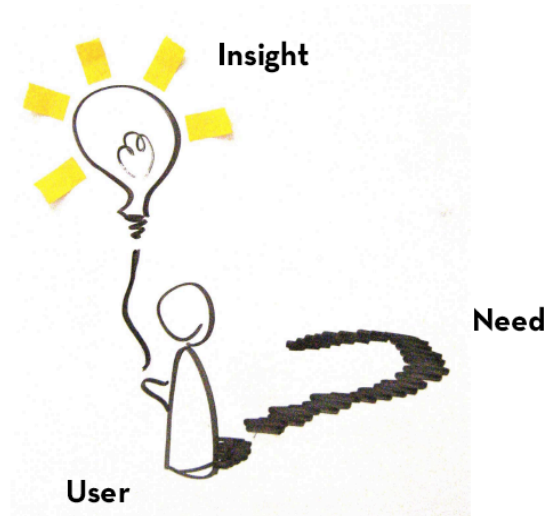
Note that thoughts/beliefs and feelings/emotions cannot be observed directly. They must be inferred by paying careful attention to various clues. Pay attention to body language, tone, and choice of words.

IDENTIFY NEEDS: “Needs” are human emotional or physical necessities. Needs help define your design challenge. Remember: Needs are *verbs* (activities and desires with which your user could use help), not *nouns* (solutions). Identify needs directly out of the user traits you noted, or from contradictions between two traits – such as a disconnect between what she says and what she does. Write down needs on the side of your Empathy Map.

IDENTIFY INSIGHTS: An “Insight” is a remarkable realization that you could leverage to better respond to a design challenge. Insights often grow from contradictions between two user attributes (either within a quadrant or from two different quadrants) or from asking yourself “Why?” when you notice strange behavior. Write down potential insights on the side of your Empathy Map. One way to identify the seeds of insights is to capture “tensions” and “contradictions” as you work.

METHOD

POINT-OF-VIEW MADLIB



WHY use a POV madlib

A point-of-view (POV) is your reframing of a design challenge into an actionable problem statement that will launch you into generative ideation. A POV Madlib provides a scaffolding to develop your POV. A good POV will allow you to ideate in a directed manner, by creating How-Might-We (HMW) questions based on your POV (see “Facilitating Brainstorms”). Most of all, your POV captures your design vision – your responsibility and opportunity as a designer is to discover and articulate the meaningful challenge.

HOW to use a POV madlib

Use one of the following madlibs to communicate your new perspective on the challenge. Both versions focus your work by prompting you to choose a specific user, need, and useful insight.

[USER] needs to [USER’S NEED] because/but/Surprisingly [INSIGHT].

We met . . . [user]

We were amazed to discover . . . [what you noticed]

We wonder if this means . . . [insight]

We aim to (help our user) . . . [need/goal]

Use a whiteboard or scratch paper to try out a number of options, playing with each variable and the combinations of them. Keep it specific (don’t lose the nuance) and hold the tension in your POV.

For example, instead of “A teenage girl needs more nutritious food because vitamins are vital to good health” you might write “A teenage girl with a bleak outlook needs to feel more socially accepted when eating healthy food, because in her hood a social risk is more dangerous than a health risk.” Note how the latter is an actionable, and potentially generative, problem statement, while the former is little more than a statement of fact, which spurs little inspiration or direction to develop solutions.

Brainstorming



Brainstorming

Brainstorm to generate tons of innovation possibilities.

Approach brainstorming with a playful, exploratory attitude.

The goal of brainstorming:

Generate a large quantity of diverse ideas in response to the design opportunities you have identified.

Select a subset of ideas (two to five) you want to explore further.

Process Essentials:

Create well-scoped How-Might-We questions (brainstorming topics).

Generate (tens/hundreds of) solution concepts.

Select ideas to carry forward, using varied criteria.

Learning Objectives:

Build self-confidence (and trust in teammates) while generating ideas.

Practice separating idea generation from evaluation.

Embrace playfulness in design.

Use constraints as springboards.

Note: The term 'brainstorming' is used here to mean exploratory idea generation while deferring final judgment of ideas. Both group and individual brainstorming are valuable. They also share many of the same principles.

Prepare:

Create brainstorm questions

Prepare intriguing How-Might-We (HMW) questions for the brainstorm. Having the 'right' questions is probably the most important factor for creating innovative ideas. This can be done during the brainstorming session or in advance. (Creating HMW questions also often helps vet and refine your insights.)

For team brainstorming:

Set up space for energy and collaboration

Set up the space to facilitate a high-energy activity: you likely want to stand close to each other, near the board, able to see each other and the board. Have plenty of white space to capture the brainstorm ideas. Keep your project point-of-view, users and insights visible.

For individual brainstorming:

Set up space for imagination

Find a space that suits your imaginary-self best. This may be secluded, or may be somewhere with lots of energy around you.

Roles:

For team brainstorming:

Brainstormers

Everyone is part of the brainstorm, for the most part playing similar roles (generating and capturing ideas).

Facilitator

Good facilitation can be very valuable to maintain the momentum of brainstorm and push the team to get to an appropriate level of specificity of ideas.

Capture:

Capture every idea

For beginners brainstorming, use a post-it technique in which everyone writes and sketches ideas on post-its and verbally shares each idea as they place the post-it on the board. This technique tends to keep everyone engaged. (A scribe technique—one person writing down all ideas—may have the advantage of more building on each other.) If people riff verbally off others' ideas that's a good sign. Make sure to write those ideas down too (even if said in a joking way).

Select ideas at the end

In addition to capturing every idea, it is important to wrap the brainstorm by selecting a few ideas to explore further. Don't end the session with a board of hundreds of ideas that stay as ideas; end with a few chosen concepts to develop and prototype. Put these each on a idea dashboard (a one-pager with a sketch, title, and headlines of what it is, how it works, and why it matters to the user).

[Capturing all ideas and selecting ideas are principles for both team and individual brainstorming.]

Doing It:

THE BASICS

Here are four keys to good brainstorming:

Good scoping of brainstorming questions

Keeping high engagement of the team (and self)

Using constraints to spur ideas

Capturing all ideas

RELATED METHOD CARDS

The basics:

**How-Might-We Questions
Brainstorming**

**Facilitate a Brainstorm
Selection**

Further Techniques:

Impose Constraints

Doing It:

STEP-BY-STEP

1. Create questions

Generate a number of brainstorming topics (“How might we . . .”) from your point-of-view (or insights).

Retain specificity and build your insights into HMWs. Hold the tension in the HMWs. Each question need not describe the entire problem you are addressing (in fact, each should be one specific angle on the challenge). Think of a good HMW as putting “half the answer” in the question—often by inserting an insight (i.e. “HMW mix fantasy and reality to create more engaging toys for ten-year-olds?”). Your goal is to create questions that spur ideas, leveraging your insights.

2. Frame and brainstorm

For team brainstorming:

Start with *one* HMW question and write it on the board. Then start brainstorming as a group. Build on ideas and headline.

As a facilitator, encourage the team, add constraints, and find rabbit holes to follow (“Oh yeah! The idea of making it a game is interesting. What could that look like?”). The brainstorm facilitator should feel the energy of the team and make adjustments as needed to steer the spirit and the direction of the brainstorm. When the pauses outnumber the ideas, you might change it up — throw in some crazy ideas to prompt others, add a constraint to spur new thinking, or change up the brainstorm topic (pick from your list of HMW questions).

The brainstorming rules give you the license to enforce productive behavior during the brainstorm—you can do this playfully and still be effective. The most common places to interject are to discourage judgment and to prevent excessive conversation from breaking out. But don't be too negative: build on the positive and strive to keep the momentum.

For individual brainstorming:

Write and draw at a board, using a journal, or on a big piece of paper. The parallel of team momentum and engagement in individual brainstorming is to keep your pen moving. Even if you don't have ideas flowing, it can help to scribble or write what does come to mind. Same as with a team, capture all ideas; the banal ones will get you to the more interesting ones.

3. Narrow to a selection

At the end of the session, select a few ideas to take forward. Don't lose the diversity and potential of ideas at this point. Use varied criteria to select ideas, such as: the sure bet, the most delightful to the user, and the long-shot. Have team members independently mark top ideas with these criteria. Then pick a few ideas with more votes. (In longer projects, there is certainly room for a more sophisticated process here. But the key is: use prototyping to make decisions, not only theorizing.)

Take a few minutes to flesh out ideas just a bit at this point: on one page, sketch the idea, give it a title, write what it is and how it works, and state why it matters to the user.

FURTHER TECHNIQUES

Use constraints

Good constraints re-up the ideation energy and spur new ideas. Beginners often create broad, general brainstorming topics. Instead, do the opposite — novel ideas come from specific topics and from responding to constraints.

During a brainstorm, add constraints when appropriate. They can be based on your design research, or random. The objective is to induce a different kind of thinking.

Some examples:

“How would you do this with a million dollars?”

“ . . . for free?”

“ . . . without technology?”

“How would [our user] create . . .?”

“How would this resolve in X movie?”

“What’s the worst idea you can think of?”

Constraints like these are added on top of the brainstorming question.

Watch out for . . .

The broad How-Might-We

Broad and bland How-Might-We statements, that ask questions absent direction (“HMW make a better toy?”), often yield abstract and bland ideas. Create How-Might-We’s that are specific enough to prompt unconventional and nuanced ideas. Don’t be afraid to brainstorm on topics more specific than your point-of-view – you can brainstorm off multiple questions to cover the space.

The safe and sane brainstorm

Too often brainstorming stays in safe and practical territory. Your challenge in brainstorming is to get comfortable offering stupid ideas AND building on those ideas, not just treating them as throw-aways.

It’s going well when ...

Your team is engaged (physically and mentally) and laughing.

Ideas are popping.

You transition back and forth with ease between digging into specific variations of a concept and broad new concept spaces.

METHOD

“How Might We” QUESTIONS



HOW MIGHT WE...?

WHY create how might we questions

“How might we” (HMW) questions are short questions that launch brainstorm. HMWs are seeds for your ideation that fall out of your point-of-view statement, design principles, or insights. Create a seed that is broad enough that there are a wide range of solutions but narrow enough that the team is provoked to think of specific, unique ideas. For example, between the (possibly) too narrow “HMW create a cone to eat ice cream without dripping” and the too broad “HMW redesign dessert” might be the properly scoped “HMW redesign ice cream to be more portable.” It should be noted, the the proper scope of the seed will vary with the project and how much progress you have made in your project work.

HOW to generate how might we questions

Begin with your Point of View (POV), insights, or problem statement. Create small actionable questions that retain your unique and specific perspective. Write these questions beginning with the phrase, “How might we...” It is often helpful to brainstorm the HMW questions before the solutions brainstorm. For example, consider the following POV and resulting HMW statements.

Challenge: Redesign the ground experience at the local international airport

POV: Harried mother of three, rushing through the airport only to wait hours at the gate, needs to entertain her playful children because “annoying little brats” only irritate already frustrated fellow passengers.

Amp up the good: HMW use the kids’ energy to entertain fellow passenger?

Remove the bad: HMW separate the kids from fellow passengers?

Explore the opposite: HMW make the wait the most exciting part of the trip?

Question an assumption: HMW entirely remove the wait time at the airport?

Go after adjectives: HMW we make the rush refreshing instead of harrying?

ID unexpected resources: HMW leverage free time of fellow passengers to share the load?

Create an analogy from need or context: HMW make the airport like a spa? Like a playground?

Play against the challenge: HMW make the airport a place that kids want to go?

Change a status quo: HMW make playful, loud kids less annoying?

Break POV into pieces: HMW entertain kids? HMW slow a mom down? HMW mollify delayed passengers?

METHOD

BRAINSTORMING



One Conversation at a Time

Encourage wild ideas

Go for Quantity

Be Visual

Headline!

Stay on Topic

Build on the Ideas of Others

Defer Judgement -
NO Blocking

WHY brainstorm

Brainstorming is a great way to come up with a lot of ideas that you would not be able to generate by just sitting down with a pen and paper. The intention of brainstorming is to leverage the collective thinking of the group, by engaging with each other, listening, and building on other ideas. Conducting a brainstorm also creates a distinct segment of time when you intentionally turn up the generative part of your brain and turn down the evaluative part. Brainstorming can be used throughout a design process; of course to come up with design solutions, but also any time you are trying to come up with ideas, such as planning where to do empathy work, or thinking about product and services related to your project - as two examples.

HOW to brainstorm

Be intentional about setting aside a period of time when your team will be in “brainstorm mode” - when the sole goal is to come up with as many ideas as possible, and when judgment of those ideas will not come into the discussion. Invest energy into a short period of time, such as 15 or 30 minutes of high engagement. Get in front of a whiteboard or around a table, but take an active posture of standing or sitting upright. Get close together.

Write down clearly what you are brainstorming. Using a How-Might-We (HMW) question is a great way to frame a brainstorm (e.g. HMW give each shopper a personal checkout experience?). (See more on the “How Might We” Questions” method card.)

There are at least two ways to capture the ideas of a brainstorming:

1. Scribe: the scribe legibly and visually captures on the board ideas that team members call out. It is very important to capture every idea, regardless of your own feelings about each idea.
2. All-in: Each person will write down each of his or her ideas as they come, and **verbally share it** with the group. It is great to do this with post-it notes, so you can write your idea and then stick it on the board.

Follow and (nicely) enforce the brainstorming rules - they are intended to increase your creative output.

METHOD

FACILITATE A BRAINSTORM



WHY facilitate a brainstorm

Good facilitation is key to a generative brainstorm. You brainstorm to come up with many, wide-ranging ideas; a good facilitator sets the stage for the team to be successful doing this.

HOW to facilitate brainstorm

ENERGY - As the facilitator it is your task to keep the ideas flowing. Perhaps the most important aspect of a successful brainstorm is the seed question that you are brainstorming about (see the “How Might We” method card for more information). During the brainstorm keep a pulse on the energy of the group. If the group is slowing down or getting stuck, make an adjustment. Create a variation to the “How-might-we?” (HMW) statement to get the group thinking in another direction (prepare some HMW options ahead of time). Or have a few provocative ideas in your back pocket that you can lob in to re-energize the team.

CONSTRAINTS - Add constraints that may spark new ideas. “What if it had to be round?,” “How would superman do it?,” “How would your spouse design it?,” “How would you design it with the technology of 100 years ago?” Additionally you can create process constraints. Try putting a time limit on each how-might-we statement; shoot for 50 ideas in 20 minutes.

SPACE - Be mindful about the space in which you conduct a brainstorm. Make sure that there is plenty of vertical writing area. This allows the group to generate a large number of potential solutions. Strike a balance between having a footprint that is big enough for everyone, but also is not so large that some people start to feel removed. A good rule of thumb is that all members of the group should be able to reach the board in two steps. Also, make sure each person has access to sticky notes and a marker so they can capture their own thoughts and add them to the board if the scribe cannot keep up with the pace. (See more about scribing on the “Brainstorming” method card.)

METHOD

SELECTION



WHY brainstorm selection is important

Your brainstorm should generate many, wide-ranging ideas. Now harvest that brainstorm, so those ideas don't just sit there on the board. Harvesting is straight forward for some brainstorms (pick a couple of ideas), but when ideating design solutions give some thought to how you select ideas. Carry forward a range of those ideas, so you preserve the breadth of solutions and don't settle only for the safe choice.

HOW to select

In the selection process, don't narrow too fast. Don't immediately worry about feasibility. Hang on to the ideas about which the group is excited, amused, or intrigued. An idea that is not plausible may still have an aspect within it that is very useful and meaningful.

Different selection techniques can be used, including these three:

1. Post-it voting – each team member gets three votes and marks three ideas that he or she is attracted to. Independent voting allows all team members to have a voice.
2. The four categories method – the method encourages you to hang onto those crazy but meaningful ideas. Elect one or two ideas for each of these four categories: the rational choice, the most likely to delight, the darling, and the long shot.
3. Bingo selection method – like the four categories method, this is designed to help preserve innovation potential. Choose ideas that inspire you to build in different form factors: a physical prototype, a digital prototype, and an experience prototype.

Carry forward multiple ideas into prototyping. If an idea is so far out there that it seems pointless to test, ask yourselves what about that solution was attractive, and then test that aspect or integrate it into a new solution.

Prototyping



Prototyping

Think of prototyping as continuation of ideation and a tool for reengaging your users.

The goal of prototyping:

Build one or more prototypes—artifacts and experiences—that will solicit feedback on issues you want to explore about your solution.

Process Essentials:

Use active prototyping to continue to develop solution concepts.

Build prototypes that are created as experiences for people to try and to react to (not just shown and talked about).

Learning Objectives:

Take on a build-to-think attitude.

Approach prototyping to learn, not to validate.

Understand how to create experiential prototypes.

Prepare:

Select concepts to bring into prototyping

Typically take multiple (two or five) concrete ideas into prototyping, and then spend the time building them rather than figuring out what to do. (That said, prototyping can certainly be used to generate concepts too.)

Use space and low-resolution materials

Have a board ready for quick initial planning. Provide open space that you can get messy in and tables to build on. Gather simple materials (paper, cardboard, sharpies, pipe cleaners, foil, pens, chairs, tables) and perhaps a laptop and smartphone.

Roles:

Split the team into pairs or trios

If the team is large, divide to work on different prototypes (in pairs or trios), for the sake of agility. However, stay abreast of the progress of each other.

Capture:

Document all prototypes

Keep the prototypes, or at least pictures of the prototype (even early low-resolution ones). More importantly document when you test the concepts with people.

Doing It:

THE BASICS

The most important thing is to get building.

Make decisions through building (not just prolonged discussion or planning).

Use these three keys for successful prototyping:

Create experiences for users to react to

Consider the artifacts, context, and roles for your prototype

Make multiple prototypes

RELATED METHOD CARDS

The basics:

Prototype to Test

Further techniques:

User-Driven Prototyping
Wizard of Oz Prototyping

Doing It:

STEP-BY-STEP

1. Get building quickly

Start making things (use your hands) and make decisions on the way. If you need pre-planning, use a whiteboard in an exploratory, rough-draft way of working (instead of debating verbally).

2. Test assumptions, not solutions

What assumptions are you making in your solutions? In other words, what needs to be true, about your user's feelings and motivations, for your solution to be successful? Or, what do you want to learn about people through your prototypes? Once you identify those, you can create prototypes to test those assumptions/questions.

For example, suppose that, based on empathy you gained, you created a new dating service concept that all first dates are double dates. Test the assumption that people want to double date, not how your website navigation might work.

As you prototype ask yourselves what you are trying to learn more about. Steer toward prototypes that will yield feedback about the important underlying assumptions. Stay focused on testing questions—not just making a cool mock-up.

3. Think about context

Often times, your solutions will be services and experiences. And, even when testing tangible products, the context matters. Thus, the design team will need to consider the context, not just make physical objects.

The best option is to go into the real environments your solution would exist (e.g. test your new menu service at the restaurant).

The second option is to create or approximate the context. Think about life-sized prototypes — not just objects, but the entire experience. Consider a theatrical metaphor: “In creating this experience, what *props* (physical objects), *scene* (environmental and situational context), and *roles* (players in the experience) do we need?” Use the real world for as much as you can, and create what else you need.

[An important distinction: you're not making a skit. In quick prototypes, you may play roles in the prototype, but you are creating an experience, not something to view.]

FURTHER TECHNIQUES

Prototyping techniques

If time allows, and in subsequent sessions, bring in specific prototyping techniques.

User-driven Prototyping helps you gain insight by getting users to create things, not just experience what you've made.

Wizard of Oz Prototyping is a good technique for testing functionalities that must feel “real” to get useful feedback.

Watch out for . . .

Stalling on making

Sometimes actually making something to put out in the world is a big roadblock for people. Remember the point of prototyping is to explore the ideas, so you don't need to figure out everything before trying something. Making a prototype does not commit you to a solution; and the goal is that you are trying something before you are ready.

The grand tour

Oftentimes teams create complex multi-step prototypes that take the users through every aspect of an elaborate solution. In the early stages of a design project, limit the scope of the prototype. Reground this prototyping by asking yourself what you are trying to test, and then simplify the prototype while retaining that intention.

Losing touch with the user

Prototyping is a time of exploration and imagination. But you should also always keep the user in mind. Don't let "cool" trump useful and meaningful. Keep your insights and/or point-of-view visible (bring it to where you are building if needed) and use them to redirect efforts.

It's going well when ...

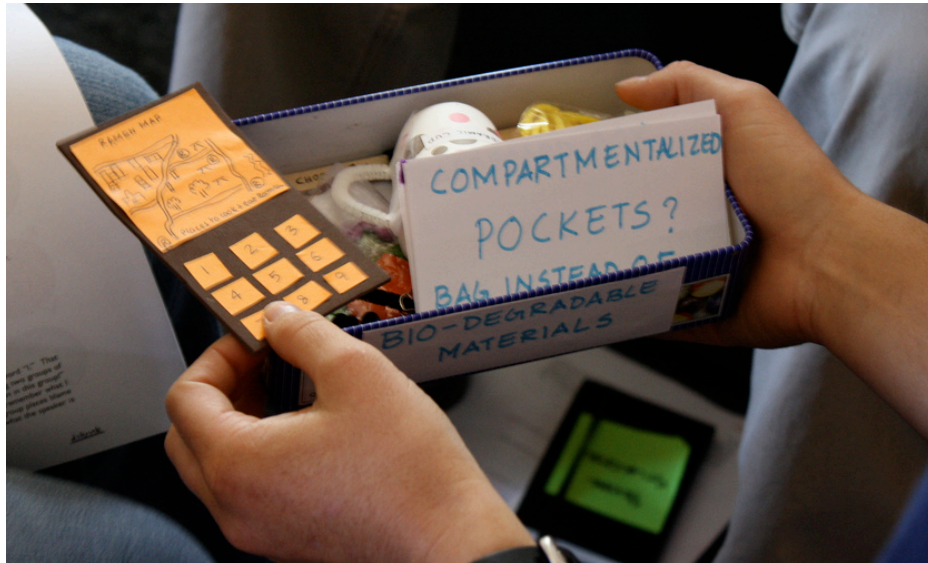
You are building.

You are thinking about how you are going to test your prototype as you build it.

You're getting a little dirty.

METHOD

PROTOTYPE TO TEST



WHY prototype to test

Prototyping to test is the iterative generation of low-resolution artifacts that probe different aspects of your design solution or design space. The fundamental way you test your prototypes is by letting users experience them and react to them. In creating prototypes to test with users you have the opportunity to examine your solution decisions as well as test your perception of your users and their needs.

HOW to prototype to test

Think about what you are trying to learn with your prototypes, and create low-resolution objects and scenarios which probe those questions. Staying low-res allows you to pursue many different ideas you generated without committing to a direction too early on. The objective is not simply to create a mock-up or scale model of your solution concept; it is to create experiences to which users can react. Bring resolution to the aspects that are important for what you are trying to test, and spend less effort on other aspects. You also need to think about the context and testing scenario you will create to get meaningful feedback. It is not always the case that you can just hand an object to someone on the street and get real feedback. Test in the context that your solution would actually be used (or approximate the important parts of that context). For example, if you are creating a consumer food storage system, let users test it in their kitchens at home – some of the nuanced but important issues will only emerge there.

Some tips for prototyping to test:

Start building. Even if you aren't sure what you're doing, the act of picking up some materials (paper, tape, and found objects are a good way to start!) will be enough to get you going.

Don't spend too long on one prototype. Move on before you find yourself getting too emotionally attached to any one prototype.

Build with the user in mind. What do you hope to test with the user? What sorts of behavior do you expect? Answering these questions will help focus your prototyping and help you receive meaningful feedback in the testing phase.

ID a variable. Identify what's being tested with each prototype. A prototype should answer a particular question when tested.

Testing with Users



Testing with Users

Approach testing with openness, humility, respect, and intention.

The goal of testing:

Gain feedback from multiple users about your solutions and ideas.

Advance your empathy for users, and refine your insights and perspective in response.

Process Essentials:

Test prototypes with multiple users and follow up with empathetic conversation.

Capture notes during testing, considering both physical and verbal reactions.

The ideal is to turn your prototype into an experiment: seeing how people interact with the concept in their real lives. In other words, putting it to a true test.

Learning Objectives:

Accept showing something imperfect, and even deficient.

Take a learning—not validating—approach to testing.

Learn to integrate feedback back into project, while retaining creative license.

Prepare:

Find users

Go into the relevant environment to test prototypes — or give prototypes to people to take into their lives. If needed, you can also bring users in your space, or go out anywhere you can find relevant people.

Plan for deep feedback

Your goal is to learn more about your user by testing. However you test your prototypes, think in advance about how you will observe their use and follow up with conversations. If you are not present during use, have testers document their experiences to show you later (take a few pictures throughout use, for example).

Roles:

If you are testing a bounded (and constructed) experience use intentional roles:

Host

Welcomes the tester, sets the context, and invites him to engage. Also acts as the lead interviewer during and after the testing.

Players

If needed, take roles in the prototype scenario.

Observers

Actively observe and take notes.

If your prototype is more of an experiment (something to be used/experienced in a true context), then you would make it available in the world and see what happens, but also be intentional about following up with individuals to give you more depth in feedback.

Capture:

Take notes

Take notes about what you observe, capturing the physical and verbal reaction of users, as well as notes from follow-on interviews.

Unpack feedback

After testing, use a shared visual structure, like a feedback capture grid, to unpack and make sense of feedback.

Doing It:

THE BASICS

Use these three keys for successful testing:

Test as though you are wrong

Test with intentionality (about what you want to learn)

Spend the time to have the conversations with testers about the experiences (go back to your empathy techniques)

RELATED METHOD CARDS

The basics:

Testing with Users

Feedback Capture Grid

Doing It:

STEP-BY-STEP

1. Prep it

Plan your testing approach. How are you going to create an experience for the user? What is scenario or context do you need to find or produce to get quality feedback on your prototype? How will you observe, or otherwise see the prototypes in use? How will you follow up for discussion with those who test the concept?

All this said, better to get going than get everything perfect; test your prototypes before you feel 100% ready.

2. Engage a user tester

If you are doing live, in-person testing:

Greet and welcome the user who will test your prototype(s). Test with a progressive procedure: give your user a minimal context, let them experience the prototype, observe their reaction, and then follow up with questions.

Answer questions with questions (i.e. let the user make the interpretation before telling her your intention). For example, if the user asks “Would I be able to select that online?”, one might respond “Would you want to? Why?”

If you are putting prototypes out into the real world:

You may still need to instruct how you would like testers to use your prototypes and how you want them to document their tests. If you running a true experiment where you are making a real product/ offering available, still think about how you will follow up with people.

3. Adjust prototypes as you go

You can make adjustments to your prototypes as you continue to test. For early prototypes, you are typically not trying to run controlled trials, but rather help yourself develop better ideas. You may be adjusting the solutions (concepts) or the prototypes (embodiments) themselves. As an example, if users get bogged down in the mechanics when you really wanted to understand how they feel about taking a certain action, ask yourself how can you learn more about the latter. This could be a change to your testing scenario, the context you set, or a change in the questions you ask.

When you are adjusting the solution itself, use the feedback but avoid getting yanked in a direction on the whim of one user. Think about a testing session as not only optimizing your solution (changing things so more and more people like it) but trying a number of options out and getting reactions to that range.

4. Test with multiple people

Test with multiple people in a session or round of prototyping.

5. Unpack

Use a shared visual structure, like a feedback capture grid, to review feedback. Have each team member headline important points on post-its, say it verbally, and put it on the board. Consider what the results tell you about your solution concepts as well as your perspective on the challenge.

Watch out for . . .

The sell

Selling your idea is the worst thing you can do when trying to gain feedback, but we naturally do it in subtle ways. We like to explain our reasoning and make things coherent for people — but doing so prevents understanding the user's interpretation, and, in turn, the way they think.

The reactionary solution tweak

You are missing an opportunity if you don't unpack and synthesize the feedback with the same vigor as you would with empathy findings. Resist taking the solution you prototyped and just making a tweak to it based on a user's comment, rather than questioning the entire concept.

It's going well when ...

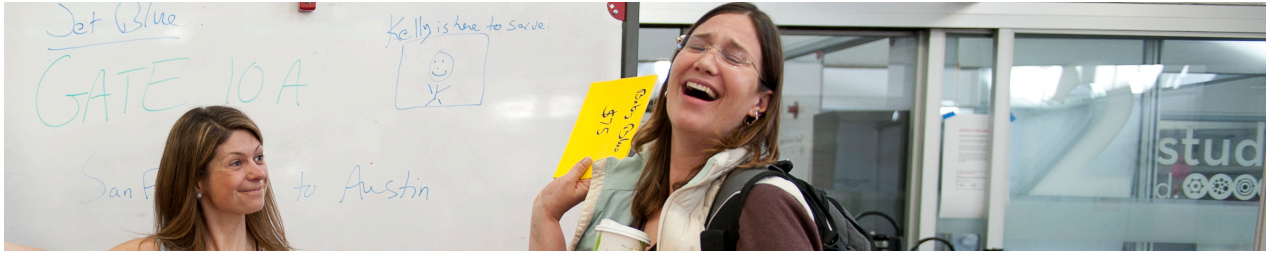
Users have a lot to say, and they are talking in the *first-person*.

You feel like you learned something that was unforeseeable.

Seeing the prototype in action spurs all sorts of new ideas.

METHOD

TESTING WITH USERS



WHY test with users

Testing with users is a fundamental part of a human-centered design approach. You test with users to refine your solution and also to refine your understanding of the people for whom you are designing. When you test prototypes you should consider both their feedback on your solution and use the opportunity to gain more empathy. You are back in a learning and empathy mode when you engage users with a prototype.

HOW to test with users

There are multiple aspects to be aware of when you test with users. One is your **prototype**, two is the **context and scenario** in which you are testing, three is **how you interact** with the user during testing and four is how you **observe and capture** the feedback.

In regard to the first two aspects, you need to test a prototype in a context that give you the best chance for meaningful feedback; think about how the prototype and the testing scenario interact. If the prototype is a scenario, think about how to find the proper people (i.e. users relevant to your point-of-view) and get them in the right mindset so that you get genuine feedback.

Roles

During the testing itself, use intentional team roles, as you would with empathy work:

Host: You help transition the user from reality to your prototype situation and give them the basic context they need to understand the scenario (don't over-explain it, let the user discover through the experience). As the host, you will also likely be the lead questioner when the time comes.

Players: You often need to play certain roles in the scenario to create the prototype experience.

Observers: It is very important to have team members who are solely observers, watching the user experience the prototype. If you don't have enough people to run the prototype and observe, videotape the testing.

Procedure

Use a deliberate procedure when you test.

1. Let your user experience the prototype. Show don't tell. Put your prototype in the user's hands (or your user in the prototype) and give just the minimum context so they understand what to do. Don't explain your thinking or reasoning for your prototype.

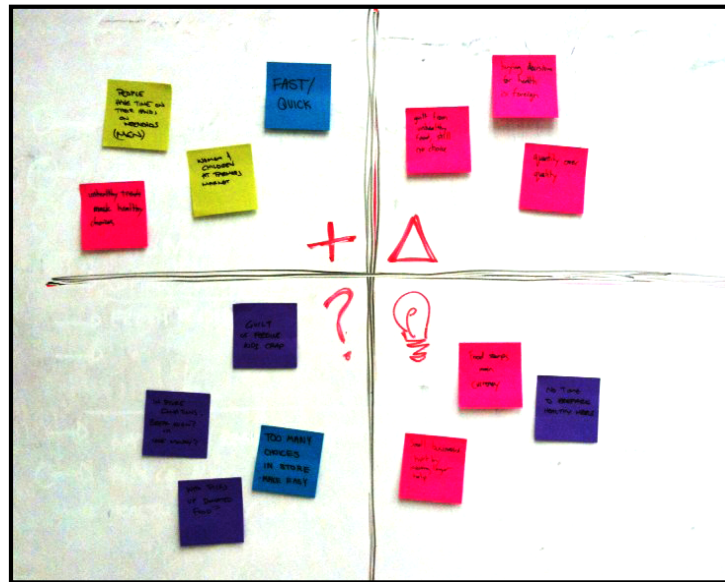
2. Have them talk through their experience. For example, when appropriate, as the host, ask "Tell me what you are thinking as you are doing this."

3. Actively observe. Watch how they use (and misuse!) what you have given them. Don't immediately "correct" what your user tester is doing.

4. Follow up with questions. This is important; often this is the most valuable part of testing. "Show me why this would [not] work for you." "Can you tell me more about how this made you feel?" "Why?" Answer questions with questions (i.e. "well, what do you think that button does").

METHOD

FEEDBACK CAPTURE GRID



WHY use a feedback capture grid

Use a feedback capture grid to facilitate real-time capture, or post-mortem unpacking, of feedback – times when presenter-critiquer interaction is anticipated. This can be used either to give feedback on progress within the design team or to capture a user’s feedback about a prototype. You use the grid because it helps you be systematic about feedback, and more intentional about capturing thoughts in the four different areas.

HOW to use a feedback capture grid

1. Section off a blank page or whiteboard into quadrants.
2. Draw a plus in the upper left quadrant, a delta in the upper right quadrant, a question mark in the lower left quadrant, and a light bulb in the lower right quadrant.

It's pretty simple, really. Fill the four quadrants with your or a user’s feedback. Things one likes or finds notable, place in the upper left; constructive criticism goes in the upper right; questions that the experience raised go in the lower left; ideas that the experience or presentation spurred go in the lower right. If you are giving feedback yourself, strive to give input in each quadrant (especially the upper two: both “likes” and “wishes”).

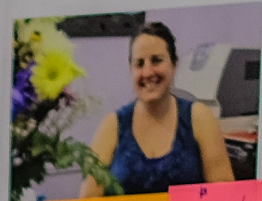
Storytelling

Initial Empa

where I come

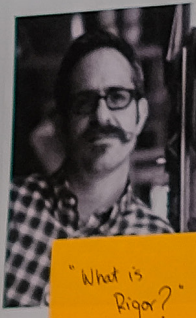


How are you defining "you" in this?

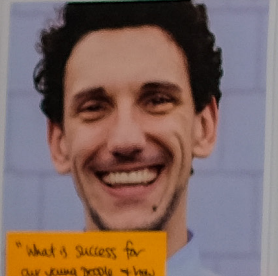


"Curriculum of You"

"Principle typical"



"What is Rigor?"

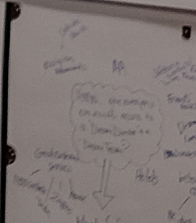
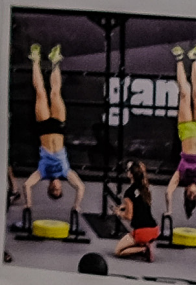


"What is success for our young people & how does it look different at each step of the journey?"

fun

Is it great for kids?

d. 



Storytelling

Communicate your vision and make your audience care about the people for whom you are designing.

The goal of storytelling:

Create a concise human-centered narrative that communicates the team's insights, shows the value of the solution, and inspires the audience.

Process Essentials:

Distill to a simple shared understanding of the central vision to communicate.

Edit your story down to what is critical and resonant to the audience.

Practice and deliver a short presentation that engages the audience.

Learning Objectives:

Practice a user-centered form of storytelling.

Get comfortable with showing and inspiring, rather than reporting.

Appreciate storytelling as a powerful mode of communication.

Prepare:

Create collaborative space

Set up a board with white space to storyboard. As a team, stand near the board, with visibility to see each other and the board. Allow for a quick transition from planning to improvising. Leave open space, and have simple props like chairs, tables, cardboard, and paper available.

Roles:

The roles of storytelling are determined by the presentation. This tends to happen rather naturally. Though you may want to ensure more introverted team members have a chance to have their voice heard.

Capture:

Storyboard

You can use a storyboard to plan the presentation.

Videotape

Consider taking a video of the presentation. If the project is successful others will want to see it or the team will be asked to present again.

Doing It:

THE BASICS

Communicate your work by making the audience care about the person for whom you are designing and the meaningful issue you are tackling.

Use these three keys for successful storytelling:

Help the audience resonate with your perspective and insights as well as the solution

Bring the user to life

Show, don't tell

STEP-BY-STEP

1. Storyboard

On a board build a storyboard (basically a comic strip version of your story) that tells a compelling story. Use sketches and words to make the storyboard. Consider using a character or (even better) a real person to ground the work in a human life. Ask yourself:

- What is the core user and needs of that person? What details do we want to use to show that?
- How does our work transform (part of) our user's life?
- What is the core idea of our solution to communicate?

2. Improvise

Once you have a basic idea of the story you are trying to create, the best way to develop your presentation is to improvise your way to it. Move quickly from creating your storyboard to playing it through. Actually speak the narration and act the parts.

3. Gut check

Consider if you have these four elements that we look for in early-stage design project pitches:

- A user the audience cares about, brought to life
- Something you learned that is actually new and insightful
- The central features of a solution worth pursuing (that responds to the needs of a user, and leverages what you have learned)
- A vision for where you are headed (inspire the audience about what will be next)

4. Practice

Do multiple live run-throughs.

RELATED METHOD CARD

The basics:

Storytelling

Watch out for . . .

The story-for-story's-sake

Sometimes the enthusiasm for a fun or striking story can overrun to need to get across the key insights and solution concepts.

The over-dramatic cliché

Humor, tension, conflict, and theatre are all welcome. But aim to be authentic. Honest expression is more powerful than cliché.

The unpracticed presentation

You simply must practice the presentation – preferably with an outside person watching to make sure it holds together.

It's going well when . . .

You gain clarity through the process of developing the presentation.

METHOD

STORYTELLING



WHY storytelling over other forms of communication

It seems stories are hard-wired into our psyche. People have been passing information along via storytelling for as long as humans have had a rich language to draw from. Stories are a great way to connect people with ideas, at a human level. A well-told story – focused on pertinent details that express surprising meaning and underlying emotions – affects the listeners feelings and intellect simultaneously.

HOW to design a story

What's the point? Know what you intend to convey both narratively and emotionally. You should be able to describe the essence of the transformation of your character in one sentence and the emotional tone in a couple of words.

Be Authentic: Stories are more powerful when they include a little bit of you. Honest expression is stronger and more resonant than cliché.

Character-Driven: Characters are a great vehicle to express deep human needs and generate empathy and interest from your audience. Focus on character.

Dramatic Action: Your story should have 3 components: Action, Conflict, and Transformation.

Action: What is the character trying to do? What are the actions she is taking to achieve it?

Conflict: What is in her way? What questions linger beneath the surface?

Transformation: What is the big insight? How do the action and conflict resolve?

Details: “Behind all behavior lies emotion.” What details can you share about your character and their situation that will suggest the emotions that lie beneath?

Design Process is a Built-in Story: Use what you've learned during the design process.

Empathy maps well to Character. Needs map to Conflict, Insights + Solutions map to Transformation.

Reflect on it

Reflection as a team and as an individual is an invaluable part of advancing your design practice. Returning to below tenets, take some time after (or during) your project to ask yourself:

FIND YOUR STYLE

How did you, as individual(s), use your own unique style to motivate and guide your work? (Sometimes it can be hard to see your natural strengths. If you aren't sure, ask others.)

How did you stretch yourself, and where do you want push yourself next time?

DESIGN YOUR DESIGN PROCESS

How did you adapt your process and approach to your project and situation? (i.e. proactive redesign)

How did you adjust on-the-fly, in response emerging problems and opportunities? (i.e reactive redesign)

What new tools, frameworks, and techniques did your create? Capture them.

COLLABORATE AS YOU WORK

How did truly collaborate and leverage all voices and talents?

If you were a primarily an individual (or pair) working how did you bring in outside ideas and perspectives?