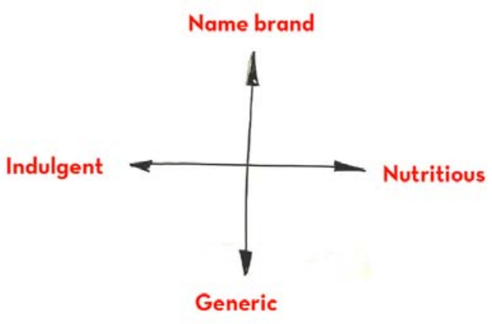
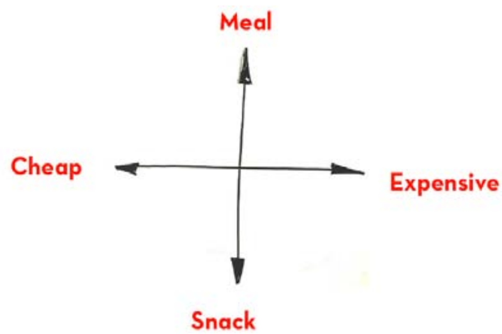
METHOD

# 2x2 Matrix




## WHY use a 2x2 matrix

A 2x2 matrix is tool to scaffold thinking and conversation about your users and problem space. Use it during your synthesis process to help you think about relationships between things or people. The hope is that insights or areas to explore more deeply will come out from using a 2x2. 2x2 matrices are also a great way to visually communicate a relationship you want to convey.

## HOW to use a 2x2 matrix

Pick two spectra (one on each axis), draw a 2x2 matrix, and plot items in the map . The items could be product, objects, motivations, people, quotes, materials – any group of things that would be useful to explore. Put opposites on either end of each axis. For example, you might place different people on a matrix of passion for their career (low-to-high) vs. technology adoption (early-adopter-to-late-adopter). Look for relationships by seeing where groups start to form. See what quadrants are very full or empty; where does the assumed correlation break down? The discussion that is spurred by trying to place items on the matrix is often more valuable than producing the map itself. You may need to try a number of combinations of spectra to get one that is meaningful and informative. Try some combinations, even if you are not sure which is right – the first attempts will inform the ones to follow.

One common use for a 2x2 matrix is a competitive landscape. In this case, an empty quadrant could signal a market opportunity (or a very bad idea).

METHOD

# Brainstorming


**One Conversation at a Time**

**Go for Quantity**

**Headline!**

**Build on the Ideas of Others**

**Encourage wild ideas**

**Be Visual**

**Stay on Topic**

**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.)

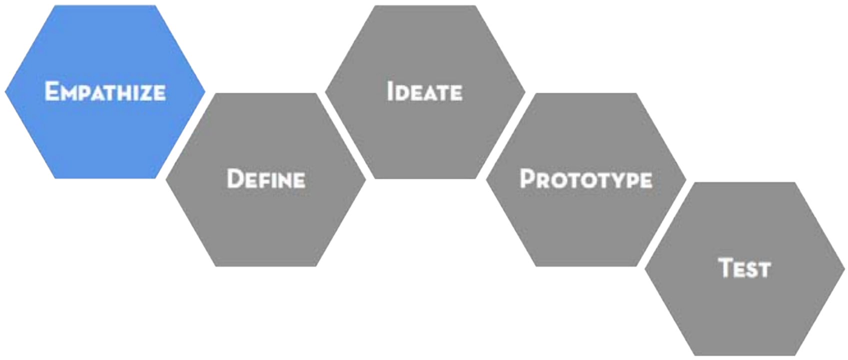
There are at least two ways to capture the ideas of a brainstorming:

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.

MODE

# Empathize




## WHAT is the empathize mode

**Empathy** is the foundation of a human-centered design process. To empathize, we:
- **Observe.** View users and their behavior in the context of their lives.
- **Engage.** Interact with and interview users through both scheduled and short 'intercept' encounters.
- **Immerse.** Experience what your user experiences.

## WHY empathize

As a human-centered designer you need to understand the people for whom you are designing. The problems you are trying to solve are rarely your own—they are those of particular users; in order to design for your users, you must build empathy for who they are and what is important to them.

Watching what people do and how they interact with their environment gives you clues about what they think and feel. It also helps you to learn about what they need. By watching people you can capture physical manifestations of their experiences, what they do and say. This will allow you to interpret intangible meaning of those experiences in order to uncover insights. These insights will lead you to the innovative solutions. The best solutions come out of the best insights into human behavior. But learning to recognize those insights is harder than you might think. Why? Because our minds automatically filter out a lot of information in ways we aren't even aware of. We need to learn to see things "with a fresh set of eyes" – tools for empathy, along with a human-centered mindset, is what gives us those new eyes.

Engaging with people directly reveals a tremendous amount about the way they think and the values they hold. Sometimes these thoughts and values are not obvious to the people who hold them. A deep engagement can surprise both the designer and the designee by the unanticipated insights that are revealed. The stories that people tell and the things that people say they do—even if they are different from what they actually do—are strong indicators of their deeply held beliefs about the way the world is. Good designs are built on a solid understanding of these kinds of beliefs and values. Engage to:
- Uncover needs that people have which they may or may not be aware of
- Guide innovation efforts
- Identify the right users to design for
- Discover the emotions that guide behaviors

In addition to speaking with and observing your users, you need to have personal experience in the design space yourself. Find (or create if necessary) experiences to immerse yourself to better understand the situation that your users are in, and for which you are designing.

# 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

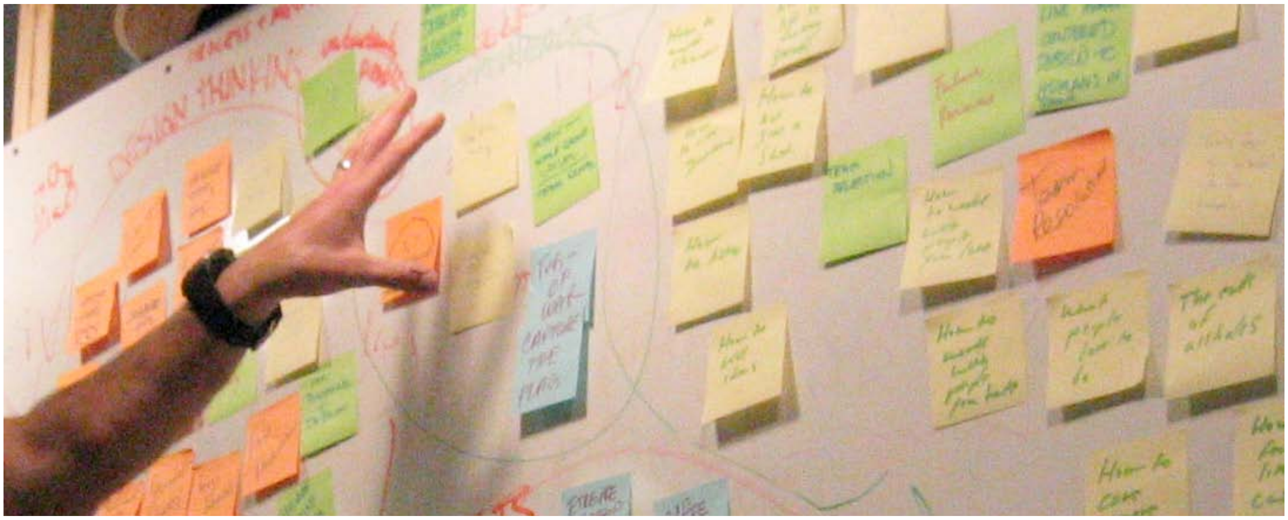
**ENERGY** – As the facilitator it is your task to keep the ideas flowing.  Perhaps the most important aspect of a successful brainstorm is the seed question that you are brainstorming about (see the "How Might We" method card for more information).  During the brainstorm keep a pulse on the energy of 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.

# Interview Preparation

## WHY prepare for an interview

Time with users is precious, we need to make the most of it! While we always must allow room for the spontaneous, blissful serendipity of a user-guided conversation, we should never abdicate our 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

# Saturate and Group

## WHY saturate and group

You space saturate to help you unpack thoughts and experiences into tangible and visual pieces of information that you surround yourself with to inform and inspire the design team. You group these findings to explore what themes and patterns emerge, and strive to move toward identifying meaningful needs of people and insights that will inform your design solutions.

## HOW to saturate and group

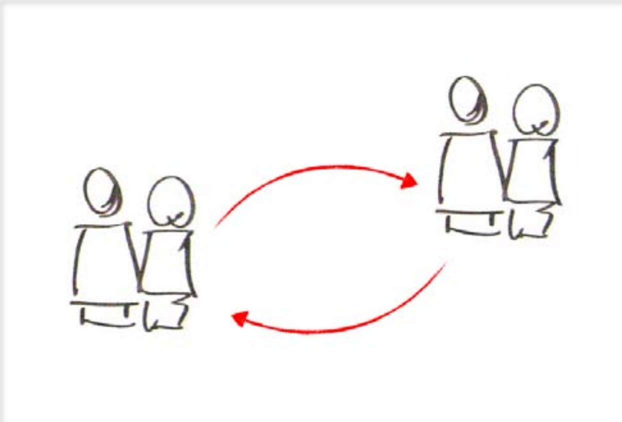
Saturate your wall space (or work boards) with post-its headlining interesting findings (see "Team Share-and-Capture") plus pictures from the field of users you met and relevant products and situations.

In order to begin to synthesize the information, organize the post-its and pictures into groups of related parts. You likely have some ideas of the patterns within the data from the unpacking you did when producing the notes. For example, you may have see and heard many things related to feeling safe, and many things regarding desire for efficiency. Within the group of 'safety', go beyond the theme and try to see if there is a deeper connection that may lead to an insight such as "Feeling safe is more about who I am with than where I am". Maybe there is a relation between groups that you realize as you place items in groups – that safety is often at odds with users' desire for efficiency. Try one set of grouping, discuss (and write down) the findings, and then create a new set of groups.

The end goal is to synthesize data into interesting findings and create insights which will be useful to you in creating design solutions.

It is common to do the grouping with post-its headlining interesting stories from fieldwork. But grouping is also useful to think about similarities among a group of products, objects, or users.

# 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.