**WHAT** is the ideate mode

Ideate is the mode of your design process in which you aim to generate radical design alternatives. Mentally it represents a process of “going wide” in terms of concepts and outcomes—it is a mode of “flaring” rather than “focus.” The goal of ideation is to explore a wide solution space – both a large quantity of ideas and a diversity among those ideas. From this vast depository of ideas you can build prototypes to test with users.

**WHY ideate**

You ideate in order to transition from identifying problems into exploring solutions for your users. Various forms of ideation are leveraged to:

• Step beyond obvious solutions and thus increase the innovation potential of your solution set
• Harness the collective perspectives and strengths of your teams
• Uncover unexpected areas of exploration
• Create fluency (volume) and flexibility (variety) in your innovation options
• Get obvious solutions out of your heads, and drive your team beyond them

Regardless of what ideation method you use, the fundamental principle of ideation is to be cognizant of when you and your team are generating ideas and when you are evaluating ideas – typically keeping these two tasks separate, and only mixing the two intentionally.
**WHY use powers of ten**

Powers of Ten is a reframing technique that can be used as a synthesis or ideation method. It allows the design team to use an intentional approach to considering the problem at varied magnitudes of framing.

**HOW to use powers of ten**

The concept of Powers of Ten is to consider one aspect over increasing and decreasing magnitudes of context. Let’s take two examples to illustrate how Powers of Ten could be used during a design process:

**POWERS OF TEN FOR INSIGHT DEVELOPMENT**: In this example, imagine you are designing a checkout experience. You are trying to understand a user’s thinking and behavior in a related aspect of her life: how she makes buying decisions. You made the observation that she read a number of customer reviews before making a purchase and are developing an insight that she values her peers’ opinions when making purchases. Consider what her behavior might be for buying various items over a wide range of costs, from a pack of gum, to a pair of shoes, to a couch, to a car, to a house. Capture this in writing. Probe for nuances in your insight and see where it breaks down. Perhaps this could develop into a framework, such as a 2x2 (see the 2x2 Matrix method card).

**POWERS OF TEN FOR IDEATION**: During brainstorming groups idea generation lulls from time to time. One way to facilitate new energy is to use Powers of Ten. Continue with your brainstorming topic, but add a constraint that changes the magnitude of the solution space. “What if it had to cost more than a million dollars to implement?”, “What about under 25 cents?”, “What if it was physically larger than this room?”, “Smaller than a deck of cards?”, “Had no physical presence?”, “Took more than four hours to complete the experience?”, “Less than 30 seconds?”. More power to you.
“How Might We” Questions

WHY create how might we questions

“How might we” (HMW) questions are short questions that launch brainstorms. 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?
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.

WHY brainstorm

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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.
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.)
WHY impose constraints

It is a bit counterintuitive, but imposing constraints with intention can actually increase your creative potential. Try it: Think of as many white things as you can in ten seconds. Now think of white things in your kitchen. Did the more constrained prompt spark more ideas?

HOW to impose constraints

There are many times throughout the design process when imposing constraints can help you be a more successful designer. However, being conscious of what filters you place on your design process, and when, is very important. Imposing a specific constraint on your idea generation is different than rejecting ideas because of pre-conceived notions of what you are trying to make.

Three areas where imposing constraints can be useful are in ideation, in prototyping, and with time:

IDEATION: During a brainstorm, or when you are ideating with a mindmap, temporarily add a constraint. This constraint might be “What if it were made for the morning?” or “How would McDonald’s do it?”. Keep this filter on the ideation for as long as it is useful. (For more, see the “Facilitate a Brainstorm” card.)

PROTOTYPING: In prototyping, particularly in early stages, you build to think. That is, you reverse the typical direction – of thinking of an idea and then building it – to using building as a tool to ideate. You can increase the output of this process by imposing constraints. Constrain your materials to push toward faster, lower resolution prototypes and increase the role of your imagination. Developing a checkout service? Prototype it with cardboard, Post-its and a Sharpie. Making a mobility device? Do it with cardboard, Post-its and a Sharpie. Designing an arcade game? Cardboard, Post-its, Sharpie. Additionally, as with brainstorming, put constraints on the solution itself. How might you design it . . . for the the blind? Without using plastic? Within the space of an elevator?

TIME: Create artificial deadlines to force a bias toward action. Make two prototypes in an hour. Brainstorm intensely for 20 minutes. Spend three hours with users by the end of the weekend. Develop a draft of your point-of-view by the end of the hour.
**WHY use I Like, I Wish, What if**

Designers rely on personal communication and, particularly, feedback, during design work. You request feedback from users about your solution concepts, and you seek feedback from colleagues about design frameworks you are developing. Outside the project itself, fellow designers need to communicate how they are working together as a team. Feedback is best given with I-statements. For example, “I sometimes feel you don’t listen to me” instead of “You don’t listen to a word I say.” Specifically, “I like, I wish, What if” (IL/IW/WI) is a simple tool to encourage open feedback.

**HOW to use I Like, I Wish, What if**

The IL/IW/WI method is almost too simple to write down, but too useful not to mention. The format can be used for groups as small as a pair and as large as 100. The simple structure helps encourage constructive feedback. Meet as a group and any person can express a “Like,” a “Wish,” or a “What if” succinctly as a headline. For example you might say one of the following:

“I like how we broke our team into pairs to work.”

“I wish we would have met to discuss our plan before the user testing.”

“What if we got new team members up to speed with a hack-a-thon?”

The third option “What if . . .” has variants of “I wonder . . .” and “How to . . .” Use what works for your team.

As a group, share dozens of thoughts in a session. It is useful to have one person capture the feedback (type or write each headline). Listen to the feedback; you don’t need to respond at that moment. Use your judgment as a team to decide if you want to discuss certain topics that arise.