



An Introduction to Design Thinking

“tool for an aging society” Edition

Facilitator's Guide:
Script, talking points, takeaways,
and setup considerations inside.



The tool for an aging society Project

A little background on the project

The project you're holding in your hands is an iteration on the d.school's iconic "tool for an aging society Project." The original tool for an aging society project was created as an introduction to design thinking for the d.school's inaugural Boot Camp class in the Winter of 2006. It has since been contributed to, modified, stretched, and evolved by many d.school collaborators.

The tool for an aging society Project is an immersive activity meant to give participants a full cycle through the design thinking process in as short a time as possible. The project itself gives facilitators the opportunity to touch on the fundamental values of the d.school—human-centered design, a bias towards action, and a culture of iteration and rapid prototyping—without attempting to communicate all of the methods and activities that the term "design thinking" encompasses.

Why did we choose a tool for an aging society as the starting point for the introductory design challenge?

- * everyone has experience with a tool for an aging society, or another way to carry cash, cards, and ID
- * the tool for an aging society and its contents have the potential to evoke a range of meaning and the larger context of a person's life
- * tool for an aging society as a starting point enables a wide range of potential innovation outcomes (we've seen objects, experiences, services, systems, and spaces)
- * having a physical artifact in-hand allows for immediate recall of experiences (participants can gain empathy for one another in the room)

It is certainly possible to facilitate a similar project with a different topic—and you may choose to in order to amp up a particular aspect you think is important for your group of participants. For example, we have done the "oral-hygiene project" to make it more personal and had participants observe their partners in their homes previous to the beginning of the workshop. We also do a "redesign the gift-giving experience" version, with the aim to encourage participants to create services, experiences, and systems. If you decide to change the topic [you can simply change the instructions for the first two steps], be mindful of the considerations we listed above and scope it in a way that is both wide-open to possibilities but also manageable for participants.

Why project-based, team-facilitated learning?

Having created learning experiences for students of all cultures, ages, disciplines, and industries, we have found that engaging in projects provides a much richer learning experience than listening to a "talking head" does. As such, our bias is to provide limited scaffolding to allow participants to **do**, and then to facilitate a reflection that invites the participants themselves to extract the meaningful learning opportunities from the experience. We teach in teams at the d.school because we have found that this approach tends to create a conversation in the classroom, as opposed to the one-way communication that often transpires in more lecture-driven formats. We relish the diversity of perspectives that emerge when faculty from diverse backgrounds instruct, and even disagree in front of, a class. One great way to run the tool for an aging society Project with two people, is for one to take **lead** (concentrating on communicating the instructions, logistics, and timing), and the other person to provide **color** (communicating the nuances, offering encouragement, and providing helpful tips).

How to set up and kickoff the project

Gather up your group members...everyone received a number on their name tag.

Find a table area where you'd like to work on either the first floor of EME or on the basement level. Help your group find appropriate seating and an adequate flat surface to work on.

Be mindful of the restaurant area...stay out of the enclosed break out rooms -stay in one of the two common areas.

Make sure you have your group's kit and digital timing device.

Find a fun way to announce that time is up --- a ring tone on your phone or ???

Be assertive about keeping the time.

Use the following script as a way of kicking off the design process:

“Instead of just telling you about design thinking, we want to immediately have you jump right in and experience it for yourselves. We are going to do a design project for the next hour or so. No breaks - so if we need a bio break, this is the moment. Okay? Ready? Let's go!”

Design the IDEAL Tool.

Draw 3min

Sketch your idea here!

Design the IDEAL Tool.

How to facilitate this step

Draw

This is what we call the “false-start”.
Of course, don’t tell the participants that...

the intention of this is to contrast an abstract, problem-centric approach with the human-centre approach that we will use during the rest of this process.

Say this script

“OK, let’s jump right in.”

“This is going to feel rushed; that’s okay. Roll up your sleeves and get ready to lean into the project.”

“Come up with some ideas for the ‘ideal’ tool.

“Go ahead and draw an idea for a better tool.

You have 3 minutes for this task.”

... At the end of the step, ask the participants,

“How did that feel? My guess is, ‘Not great.’”

“That was a typical problem-solving approach, taking on a given problem, working using your own opinions and experience to guide you, and with a solution in mind to be designed.”

“Let’s try something else—a human-centered design thinking approach.”

Design the IDEAL tool for our aging society.

Draw 3min

Sketch your idea here!

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Your **NEW** mission: **Design something useful and meaningful for your partner.**
Start by gaining empathy.

1 Interview

8min (2 sessions x 4 minutes each)

Notes from your first interview

Switch roles & repeat Interview

2 Dig Deeper

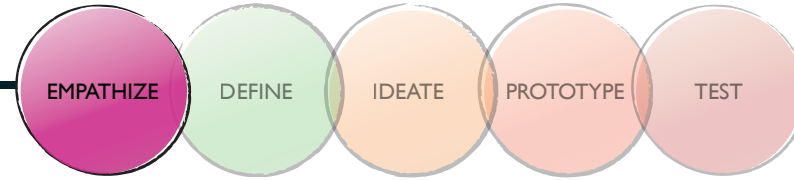
6min (2 sessions x 3 minutes each)

Notes from your second interview

Switch roles & repeat Interview

EMPATHIZE

How to facilitate these steps



1—Interview your Partner

Have participants partner up in pairs.

It helps to refer to “Partner A” and “Partner B” to simplify your language in these interactive steps.

Use the following script:

“Your challenge is to design something useful and meaningful to your partner.” The most important part of designing for someone is to gain empathy for that person.

“One way to do this is to have a good conversation.”

Be clear about the logistics of the interviews:

“Partner A will have four minutes to interview Partner B, and then we will tell you when to switch.”

“As a starting point, ask your partner to explain their understanding of the challenges facing the aging population as they balance staying at home with their need to go out in public for social, business or recreational needs.”

“What are the challenges the aged might face? Are there tools that might help them? What might the use of those tools tell you about their lives?”

Tell them to take note of things they find interesting or surprising.

“Let’s begin!” (Depending on where your group is located, you might want to play some upbeat music now.) After 4 minutes, switch partners.

2—Dig deeper

After the first set of interviews, tell them to follow up on things that intrigued them during the first interview.

“Try to dig for stories, feelings, and emotion.”

“Ask ‘WHY?’ often”

Say “Forget about the tool, find out what’s important to your partner.”

“Why is the challenge they identified a problem? When did it occur or when might it occur? When did you first become aware of this challenge?” Remind them you will let them know when time is up.

Tell them again, make note of any unexpected discoveries along the way, capture quotes!”

Your NEW mission: **Design something useful and meaningful for your partner.**
Start by gaining empathy.

1 Interview 8min (2 sessions x 4 minutes each) Notes from your first interview	2 Dig Deeper 6min (2 sessions x 3 minutes each) Notes from your second interview
<small>d.○○○○○</small> Switch roles & repeat Interview	Switch roles & repeat Interview

Reframe the problem.

3 Capture findings 3min

Goals and Wishes:

What is your partner trying to achieve?

*use verbs

Insights: New learnings about your partner's feelings and motivations. What's something you see about your partner's experience that maybe s/he doesn't see?*

*make inferences from what you heard

4 Take a stand with a point-of-view 3min



_____ partner's name/description

needs a way to _____

user's need

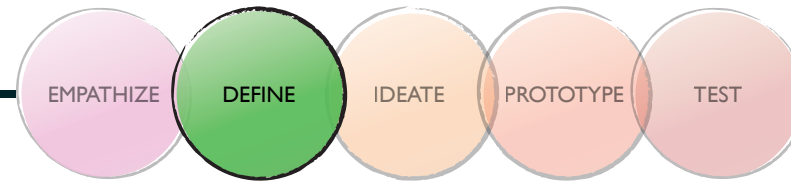
because (or "but..." or "Surprisingly...")

[circle one]

_____ insight

Reframe the Problem DEFINE.

How to facilitate these steps



3—Capture findings

Tell them to *individually* take three minutes to collect their thoughts and reflect on what they've learned about their partner.

“Synthesize your learning into two groups: your partner’s goals and wishes, and insights you discovered.”

“Use verbs to express the goals and wishes.”

“These are your needs related to design of a tool to support the aged. Think about both physical and emotional needs.”

“For example maybe your partner *needs* to help the elderly apply makeup or deal with hygiene challenges...or needs to feel like it is important to consider issues of security.”

“Insights’ are discoveries that you might be able to leverage when creating solutions.”

“For example, you might have discovered the insight that buying with cash makes your partner more vulnerable.” “Or, that they see the challenges as a societal issue rather than a personal one.”

4—Take a stand with a point-of-view

Now tell them to select the most compelling need and most interesting insight to articulate a point-of-view.

“This is your point of view.”

“Take a stand by specifically stating the meaningful challenge you are going to take on.” ‘This is the statement that you’re going to address with your design, so make sure it’s juicy and actionable!’

“It should feel like a problem worth tackling!”

“Your point-of-view might be:

‘Janice needs a way to feel she has access to all her stuff when she goes out in public but she can't look like a victim. Surprisingly, carrying her purse makes her feel safe rather than having her valuables in a different sort of container.’ Or ‘Arthur needs a way to socialize with his friends while eating healthy, but he feels like he doesn't eat fast enough and might hold back his friends.’”

Reframe the problem.

3 Capture findings 3min

Goals and Wishes:

What is your partner trying to achieve?

*use verbs

Insights:

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4 Take a stand with a point-of-view 3min



partner's name/description

needs a way to

user's need

because (or “but . . .” or “Surprisingly . . .”)

(circle one)

insight

Ideate: generate alternatives to test.

5 Sketch at least 5 *radical* ways to meet your user's needs. 5min



write your problem statement above

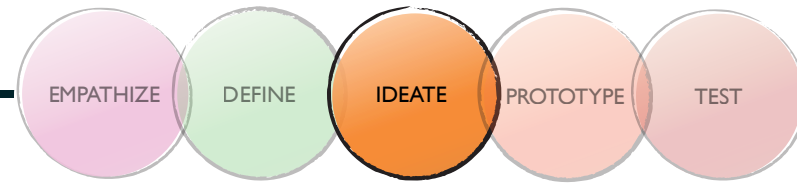
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6 Share your solutions & capture feedback. 10min (2 sessions x 5 minutes each)

Notes

Ideate: generate alternatives to test.

How to facilitate these steps



5—Sketch to Ideate

Have them rewrite their problem statement at the top of the page.

Remind them they are now creating solutions to the new challenge they've identified.

Ask them to sketch a lot of ideas, and to try to create a number of different ideas.

“GO FOR VOLUME!”

“This is time for idea generation, not evaluation—you can evaluate your ideas later.”

You can even suggest a friendly competition to come up with the most ideas --

“See if you can come up with at least 7 ideas!”

Remind them they are not necessarily designing a tool; instead they should create solutions to the problem statement they just created.

“Remember to be VISUAL—use words just when necessary to call out details.”

... “One minute left! Try to sketch at least 2 more wildly different ways to address your problem statement!”

6—Share solutions and capture feedback

“Now it's time to share your sketches with your partner!”

“Partner A, share your sketches with Partner B first, and then we will tell you to switch after four minutes.”

Tell them to note likes/dislikes and builds on the idea, but also listen for new insights.

“Spend the time listening to your partners reactions and questions.”

“This is not just about validating your ideas.”

“Fight the urge to explain and defend your ideas.”

“This is another opportunity to learn more about your partner's feelings and motivations.”

Tell them to switch after time is up for the first session.

Ideate: generate alternatives to test.

5 Sketch at least 5 radical ways to meet your user's needs. 5min

 write your problem statement above

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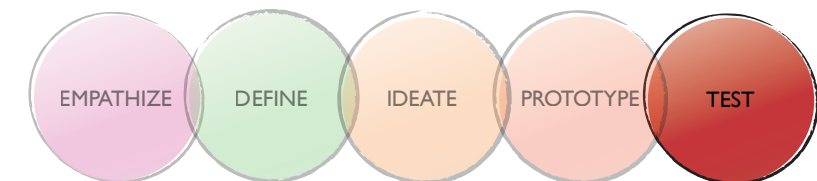
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Notes

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Switch roles & repeat sharing.



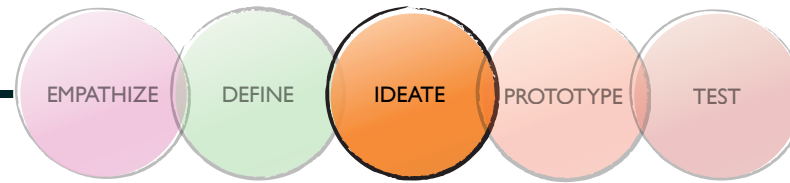
Iterate based on feedback.

7 Reflect & generate a new solution. 3min

Sketch your big idea, note details if necessary!

Iterate based on feedback.

How to facilitate this step



7—Reflect & generate a new solution

They've had a chance to share their sketches with their partners and collect feedback.

“Now, take a moment to consider what you have learned both about your partner, **and** about the solutions you generated.”

“From this new understanding of your partner and his or her needs, sketch a new idea.”

Tell them this solution may be a variation on an idea from before or something completely new.

They are still addressing a problem statement that *they* articulated, but you might point out that their previous problem statement may need to change to incorporate the new insights and needs they discovered.

“Try to provide as much detail and color around your idea as possible.”

“How might this solution fit into the context of your partner's life?”

“When and how might they handle or encounter your solution?”

Iterate based on feedback.

7 Reflect & generate a new solution. 3min

Sketch your big idea, note details if necessary!

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Build and test.

8 Build your solution.

Make something your partner can interact with!

[not here]

7min

9 Share your solution and get feedback.

+ What worked...

- What could be improved...

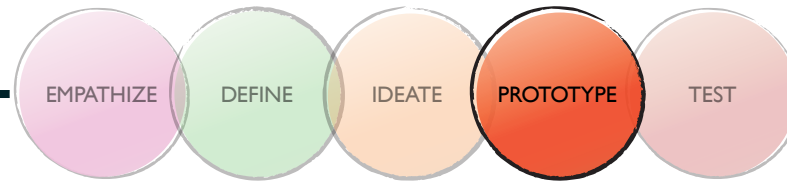
? Questions...

! Ideas...

8min (2 sessions x 4 minutes each)

Build and test.

How to facilitate these steps



8—Build!

Tell participants we will now use the ideas they just sketched as a blueprint for a tangible manifestation of their solution.

First, we have to discuss the options that our group has developed.

Remind them we can only build a prototype of one of these great ideas. Check the time - if lunch is ready and your group needs a break, stop here and gather your lunch. Tell the group to bring their lunch right back and we'll eat together while we negotiate the next step.

If people can work for another 15 mins., ask the group to share their ideas. Then, share the items in the kit. Ask the group to pick one of the ideas to prototype. Remind them they can make a pitch to use items from the pantry and there is an entire tool box to draw items from.

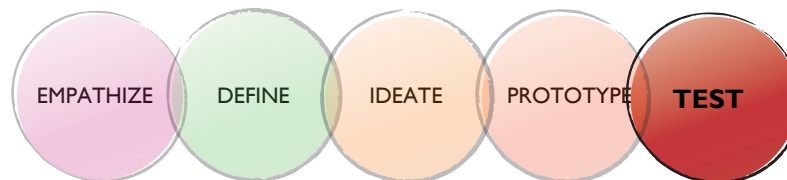
Use the next period of time to

- Decide which design to prototype
- Eat lunch
- Work on the prototype
- Refer to the Group Facilitation Guide

Explain that they should not simply make a scale model of their idea to explain the idea.

They should create an experience that their partner can react to.

They could decide to test just one aspect of the overall solution.



“MAKE something that your partner can engage and interact with.”

“If your solution is a service or a system, create a scenario that allows your partner to experience this innovation.”

“Use whatever materials are available to you—including space!”

Provide some urgency and excitement in your voice—you want to get them building immediately.

Tell them they have 3 hours to complete all the tasks and they will need to share their ideas and prototypes with the rest of the Maker Day participants.

Build and test.

8 Build your solution.

Make something your partner can interact with!

[not here]

7min

d. ●●●●●

9 Share your solution and get feedback.

+ What worked...

- What could be improved...

? Questions...

! Ideas...

8min (2 sessions x 4 minutes each)

9—Share your solution and get feedback

Explain the purpose of Gallery Tour and Documentation Panel.

“You will have the opportunity to share your prototype with the larger group.”

Validation of the prototype is not the point—it should be an artifact that facilitates a new, targeted conversation.

“When you test, LET GO of your prototype, physically and emotionally.”

“Your prototype is NOT PRECIOUS, but the feedback and new insights it draws out are!”

“Don’t defend your prototype; instead, watch how your partner uses and misuses it.”

Tell them to jot down things other participants liked and didn’t like about the idea, as well as questions that emerged and new ideas that came up.

Reflection and takeaways.

How to facilitate this step

10—Group gather and debrief

This step is important! A well facilitated reflection has the power to turn this exercise from simply a fun activity to a meaningful experience that could impact the way participants approach innovation in the future. Quickly pull together a few tables that everyone can gather around.

Tell everybody grab their prototypes and set them on the table in the middle of the room.

“We’re going to huddle around and see what innovations you’ve created for your partners!”

“Who had a partner who created something that you really like?”

“Who sees something they are curious to learn more about?”

Ask for the person who created the prototype and engage them in the conversation.

“How did talking to your partner inform your design?”

“How did testing and getting feedback impact your final design?”

“What was the most challenging part of the process for you?”

The key to leading this conversation is to relate the activity to the big takeaways you want to illustrate.

Some of core values of design thinking that would be great to draw out include:

Human-centered design: Empathy for the person or people you are designing for, and feedback from users, is fundamental to good design.

Experimentation and prototyping: Prototyping is not simply a way to validate your idea; it is an integral part of your innovation process. We build to think and learn.

A bias towards action: Design thinking is a misnomer; it is more about doing than thinking. Bias toward doing and making over thinking and meeting.

Show don’t tell: Creating experiences, using illustrative visuals, and telling good stories communicate your vision in an impactful and meaningful way.

Power of iteration: The reason we go through this exercise at a frantic pace is that we want people to experience a full design cycle. A person’s fluency with design thinking is a function of cycles, so we challenge participants to go through as many cycles as possible—interview twice, sketch twice, and test with your partner twice. Additionally, iterating solutions many times within a project is key to successful outcomes.

