

3D Interaction in Mixed Reality

1. empathise
2. Define

3. Ideate

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Leituras recomendadas

Stage 2: Define the problem and interpret the results

<https://www.interaction-design.org/literature/article/stage-2-in-the-design-thinking-process-define-the-problem-and-interpret-the-results>

BY RIKKE DAM AND TEO SIANG

Stage 3: Ideate

<https://www.interaction-design.org/literature/article/stage-3-in-the-design-thinking-process-ideate>

BY RIKKE DAM AND TEO SIANG

What is Ideation – and How to Prepare for Ideation Sessions

<https://www.interaction-design.org/literature/article/what-is-ideation-and-how-to-prepare-for-ideation-sessions>

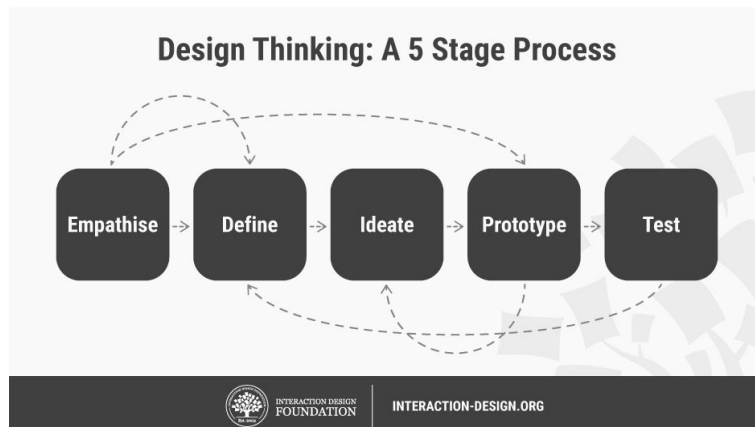
BY RIKKE DAM AND TEO SIANG

5 Stages in the Design Thinking Process

BY RIKKE DAM AND TEO SIANG

<https://www.interaction-design.org/literature/article/5-stages-in-the-design-thinking-process>

Design Thinking: a 5 State Process



Summary

Design Thinking process is iterative, flexible and focused on collaboration between designers and users, with an emphasis on bringing ideas to life based on how real users think, feel and behave.

Design Thinking tackles complex problems by:

Empathise: Understanding the human needs involved.

Define: Re-framing and defining the problem in human-centric ways.

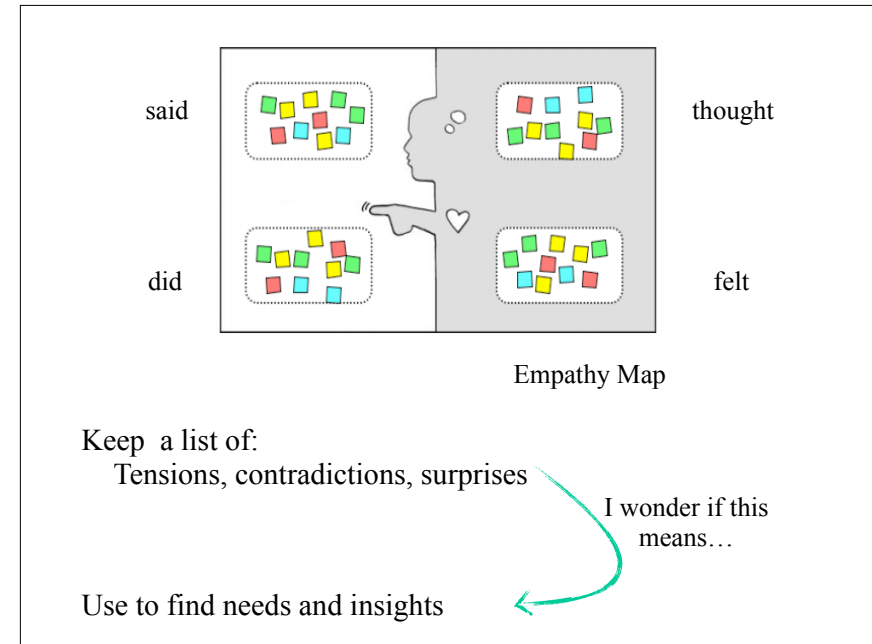
Ideate: Creating many ideas in ideation sessions.

Prototype: Adopting a hands-on approach in prototyping.

Test: Developing a prototype/solution to the problem.

1. Empathise – research your user's needs

- Gain empathetic understanding of the problem
 - Typically through user research
- Empathy is crucial to a human centered design process
 - allow you to set aside your own assumptions
 - gain real insight into users and their needs



Example

Immigrants - [Re-]entry Education

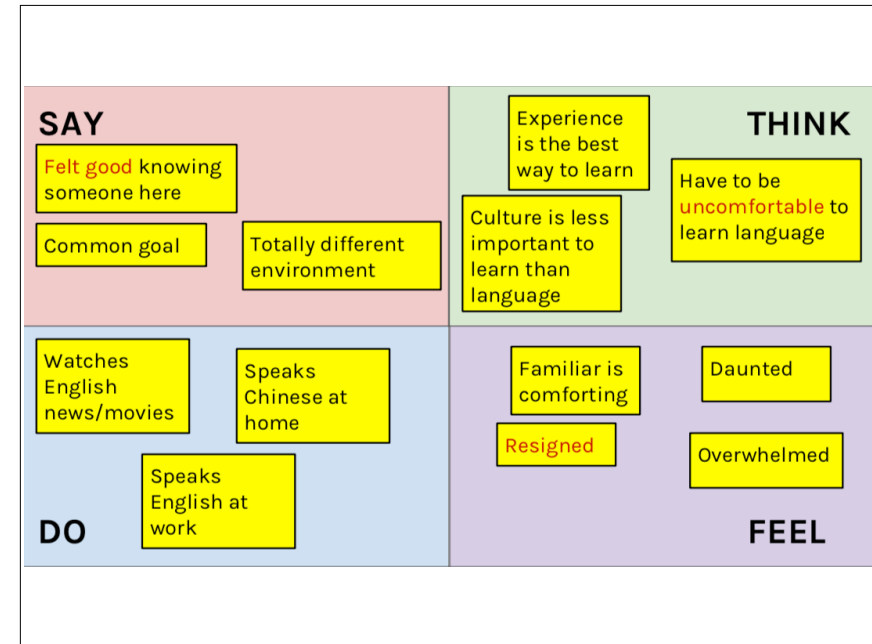
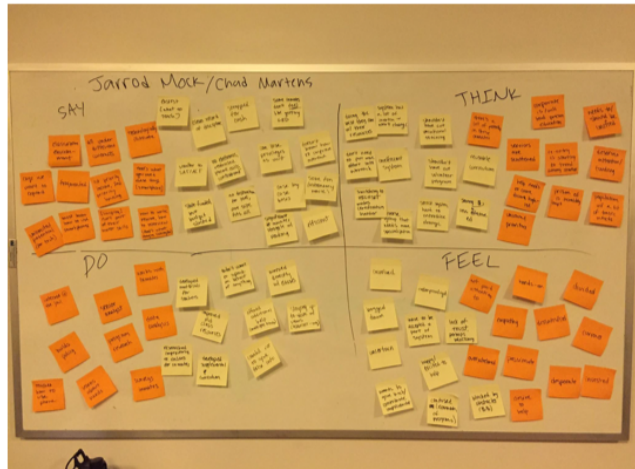
<https://hci.stanford.edu/courses/cs147/2016/au/projects/LearningEducation/Pelican/pdf/assignment1-presentation.pdf>

Example Questions

- What was your experience?
- How did it make you feel?
- Unexpected difficulties?
- Story about meeting someone new?

"I should've tried harder to mix into society, instead of looking for comfort and staying with people like me"

Empathy Map



Needs and Insights

Need: to learn a new language

Insight: have a positive attitude towards learning language will reduce their isolation

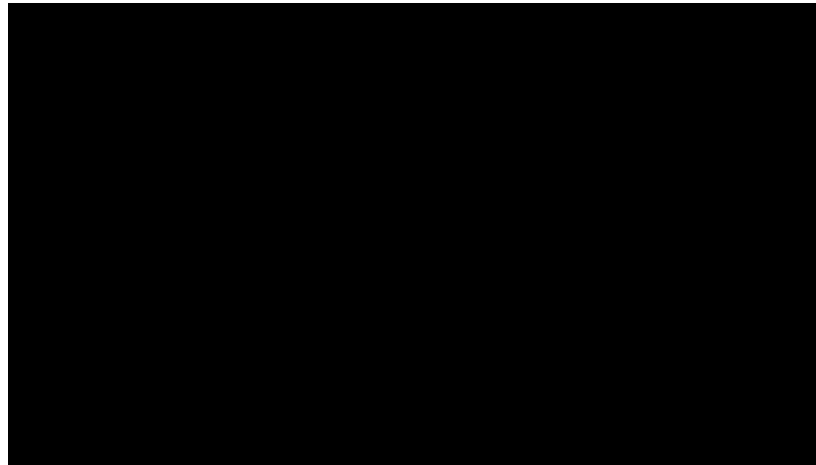
Other example at:

<https://hci.stanford.edu/courses/cs147/2016/au/projects/MicroAdventure/Bandwagon/assignments/Presentation1.pdf>

Example

Car maintenance

<https://vimeo.com/9212719>



do it now

UNPACK: note the say, do, think, and feel.

Send it to Pollev

Empathy map - s: say, d: do, t: think, f: feel

do it now

UNPACK: note the say, do, think, and feel.

NEEDS AND INSIGHTS: infer from observations

Send it to Pollev

Needs (n:) and Insights (I:)

Stage 2: Define

2. Define – state your user's needs and problems

Accumulate the information you collected during the Empathize stage.

Analyze and synthesize them to define the core problems

Seek to define the problem statement in a human centered manner

Generate
Points of View
POVs

Point of View (POV)

provides focus and frames the problem

Point of view

WE MET ...

one person who inspired you to ..

WE WERE AMAZED TO REALIZE ...

what did you learn that's new? What is their need?

IT WOULD BE GAME-CHANGING TO ...

frame up an inspired challenge for yourself - the insight do not dictate the solution.

Examples

We met Baiju, Robinhood's co-founder. We were amazed to learn that organizational structure can have a noteworthy impact on meeting dynamics and productivity. It would be game changing if a solution could be designed to break down company hierarchies and create a level playing field for all individuals in attendance at a meeting.

We met Grant, a project manager who needs to know when and why he should go to a meeting. It would be game changing if Grant knew the purpose of a meeting in more detail than "Data Pipeline Chat" so he could know if he should attend.

Which is better?

do it now

UNPACK: note the say, do, think, and feel.

NEEDS AND INSIGHTS: infer from observations

POINT OF VIEW: complete the sentences

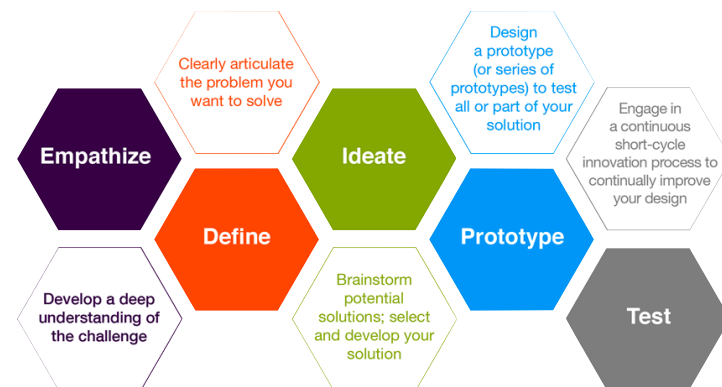
We met X

We were amazed to realize ...

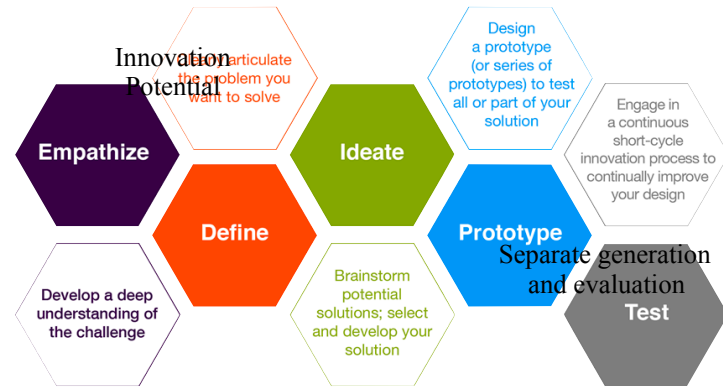
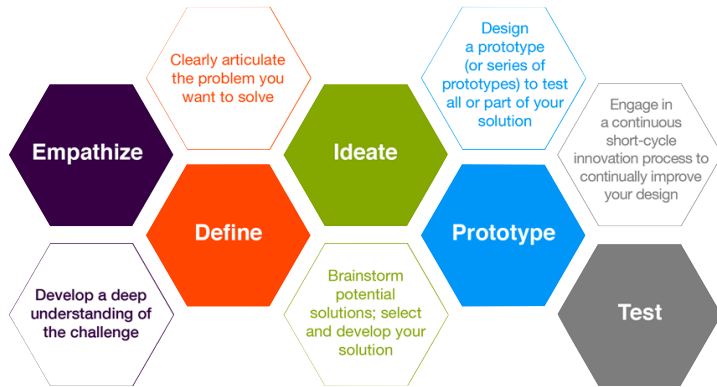
It would be game-changing to ...

Send it to Pollev

Point of View (POV): we met X. We were amazed to realize ... # it would be game-changing to



Stage 3: Ideate



How do we start?



How MIGHT WE...?



“might” lets you defer judgement

helps people to create options freely

opens up more possibilities

exercise



POV: Harried, mother of 3, 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.

Break POV into pieces

POV: Harried, mother of 3, **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.

HMW slow a mom down?

HMW entertain kids?

Go after adjectives

POV: Harried, mother of 3, **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.

HMW make the rush refreshing instead of harrying?

Brainstorming: How might we

one conversation at a time encourage wild ideas
go for quantity be visual
headline stay on topic
build on the ideas of others defer judgment

Use constraints to energize your ideas

how would you design it with the technology of 100 years ago?

all ideas must use magic.

how would you design it using Mixed Reality?

Brainstorming

GO!

do it now:

generate some HMW statements!

How Might We (HMW)?

To improve your HMW

Break the POV into pieces

Go after adjectives

Augment the good and remove the bad

Explore the opposite

Question an assumption

Identify unexpected resources

Create an analogy from need or context

Change a status quo (how things are being done?)

POV: Harried mother at airport

How might we change the general feeling towards kids at the airport?

HMW change the general feeling towards kids at the airport?

HMW provide accurate info about wait time at the airport.. so you don't need to wait at the gate?

HMW make the waiting time at the gate productive?

HMW allow the kids to have more fun while shielding the passengers from frustrating noise?

HMW make it so people think kids as endearing instead of irritating?

HMW reduce the stress for a mother trying to navigate the airport with young kids?

Selecting a good problem

Frequency

something that occurs often

Density

lots of people experience it

Pain

more than a small annoyance

Friction of the solution

how hard is it for a user to access, understand, or use

Interested

your team is motivated to work on this problem

<https://www.k9ventures.com/blog/2015/02/10/finding-problem-worth-solving/>