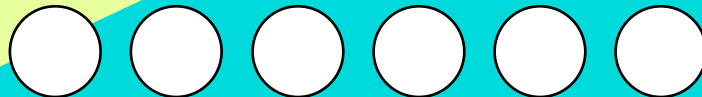




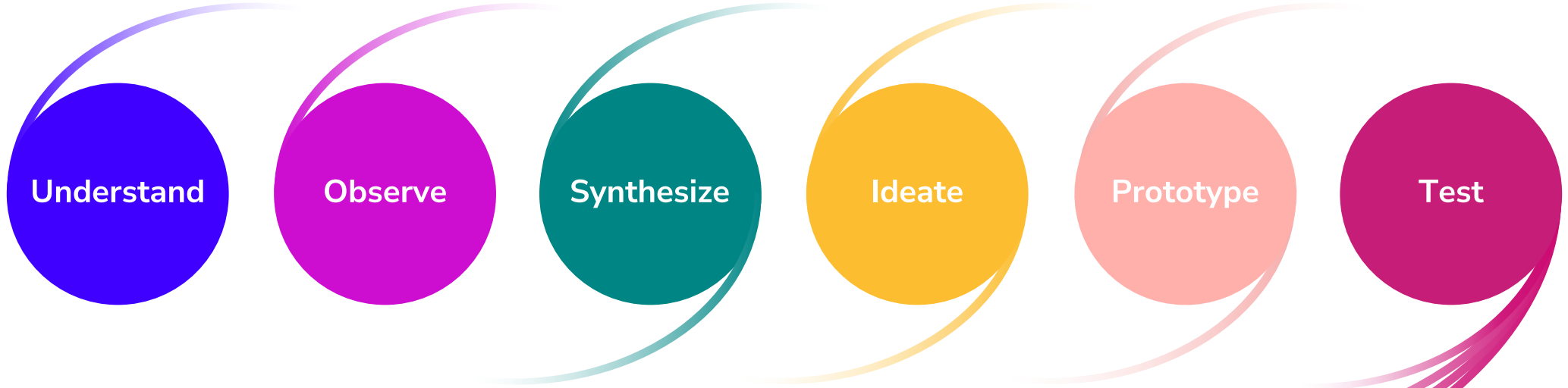
HPI Certification Program  
for Design Thinking Coaches

# Method Cards Basic



Understand Observe Synthesize Ideate Prototype Test

# Overview



## Understand

- [Semantic Analysis](#)
- [Design Charrette](#)
- [User Journey](#)
- [Stakeholder Map](#)
- [Co-Creation Session](#)
- [Service Blueprint](#)

## Observe

- [Qualitative User Interview](#)
- [Observation](#)
- [Immersion](#)
- [Cultural Probes](#)
- [Conversation Starter](#)
- [AEIOU](#)

## Synthesize

- [AEIOU](#)
- [Empathy Map](#)
- [Unpacking Grid](#)
- [Nugget Framing](#)
- [Sensemaking Ladder](#)
- [Point of View \(POV\)](#)
- [Persona](#)
- [Fields of Opportunity](#)
- [Jobs to be Done](#)
- [User Stories](#)
- [User Journey](#)
- [Venn Diagram](#)
- [2x2 Matrix](#)
- [Service Blueprint](#)
- [Voting](#)

## Ideate

- ["How Might We" Question](#)
- ["How to" Question](#)
- [Brainstorming](#)
- [Superhero Brainstorming](#)
- [Bodystorming](#)
- [Idea Shopping](#)
- [6-3-5](#)
- [SCAMPER](#)
- [News of the Future](#)
- [Venn Diagram](#)
- [2x2 Matrix](#)
- [Voting](#)
- [Idea Funnel](#)
- [Co-Creation Session](#)
- [Idea Napkin](#)

## Prototype

- [Concept Prototype](#)
- [Testing Prototype](#)
- [Rapid Cross-Prototyping](#)
- [Co-Creation Session](#)
- [Idea Napkin](#)
- [Service Blueprint](#)
- [User Journey](#)
- [Storyboard](#)
- [Roleplay](#)
- [Wizard of Oz](#)
- [News of the Future](#)

## Test

- [User Test](#)
- [Observation](#)
- [Feedback Grid](#)
- [Learnings Grid](#)
- [Roleplay](#)
- [Wizard of Oz](#)
- [Paper Wireframe](#)
- [Storyboard](#)

# Semantic Analysis

In **which phase** is this method used frequently?



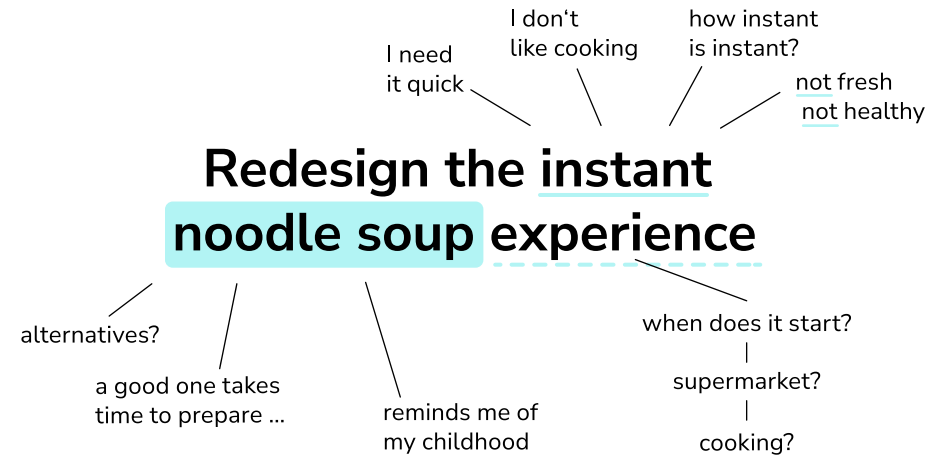
## Goals *What do we want to achieve by using this method?*

- To share the existing knowledge, questions and assumptions about the challenge within the team
- To show that each team member has a different understanding of each word/phrase and therefore of the overall challenge
- To open the field and consider all possible areas for the team to research in the observe phase
- To create a common understanding of what the challenge encompasses and to align the team members

## Description *How does this method work?*

1. Team first breaks down the challenge by underlining the most important words/sections of the challenge.
2. Team members write all pre-existing knowledge, information and questions which they associate with each word/section on post-its and share these with the team.
3. Team clusters this information and looks for patterns/identifies blind spots.
4. Team starts to select topics which will guide their user research.

## Example *How could this look?*



## Alternative Methods *What other methods can you use instead?*

- User Journeys
- Stakeholder Maps
- Design Charrette

## Pitfalls/Hints

- Overdiscussing irrelevant words/wording (e.g. "redesign")
- With teams new to design thinking, you can introduce this as a simple mind mapping exercise

# Qualitative User Interview

In **which phase** is this method used frequently?



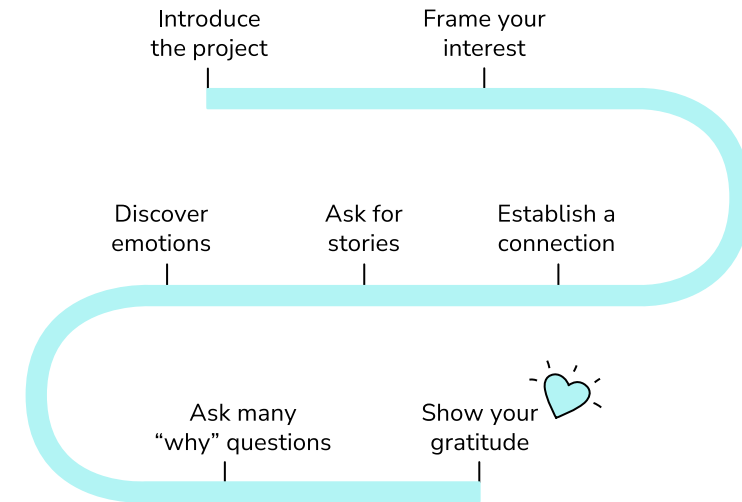
## Goals What do we want to achieve by using this method?

- To gather qualitative information (quotes, personal stories, pains & gains, motivations, emotions, etc.) from users and stakeholders who are directly affected by or involved in the challenge topic
- To build empathy with affected users, and start understanding the challenge through their eyes

## Description How does this method work?

1. Using the information gathered and clustered in the UNDERSTAND step, the team identifies topics which they would like to address in their user interview.
2. These topics can provide loose guidance for your interview questions, and can be a good starting point or structure of the interview (“headlines”).
3. A qualitative user interview should not be dominated by these topics! Follow the natural flow of the interview, make it feel like a conversation and look out for tensions, contradictions, or surprises mentioned by your interview partners. Dig deeper into interesting insights mentioned.
4. In groups of 2–3, teams find users to interview. These can be pre-arranged with users, or spontaneously held in public places.
5. One person should interview, and the other(s) should capture findings either as quotations, or observations of interviewee behavior and body language.

## Example How could this look?



## Alternative Methods What other methods can you use instead?

- Observation
- Immersion

## Pitfalls/Hints

- Listen more than you talk
- Ask ‘why?’ or ‘what is the reason for ... ?’
- Be comfortable digging deeper
- Take detailed notes, capture direct quotations in their delivered form

# Unpacking Grid

In **which phase** is this method used frequently?



## Goals *What do we want to achieve by using this method?*

- To share findings from the user interviews in the OBSERVE phase with the whole team in a structured way
- To get a bigger picture of the problem space across multiple interviews

## Description *How does this method work?*

1. The team finds a suitable space to unpack, usually their team space.
2. Each interview pair takes some time to look through their notes and identifies their most interesting findings per interview. Interesting findings include: surprises, tensions, contradictions, extreme behaviours and beliefs.
3. Write each finding as direct quotations from the interview partner, on one post-it.
4. Team members present their findings to the rest of the team. Present:
  - a) Name & short description of the interviewee (job, personality, hobbies, life situation)
  - b) Top findings from the interview
5. Depending on time constraints, allow other members of the team to ask questions for clarification.

## Example *How could this look?*

### We met ...



Lilly, 5y &  
her mother  
Lena, 37y

### They said ...

I love noodle soup  
but mummy hates  
it

She eats them raw!  
Why?!

I try to make them a  
treat, so it doesn't  
become routine

### Surprises, Tensions ...

Mother hates instant  
but uses it as a "treat"  
for daughter



Peter, 26y,  
IT student

I cannot cook, soup  
is the only thing I  
make

I like the taste  
and it's fast

I always add fresh veggies  
& meat, otherwise it does  
not fill me up

Says he can't cook but uses  
extra & fresh ingredients for  
his soup

## Alternative Methods *What other methods can you use instead?*

- Empathy map
- Clustering

## Pitfalls/Hints

- Depending on depth & length of interviews, you might limit how many post-its everyone has to share their insights.
- Tell the team to not share everything, make sure they select only the most interesting findings.
- It is useful to colour-code post-its.

# Nugget Framing

In **which phase** is this method used frequently?



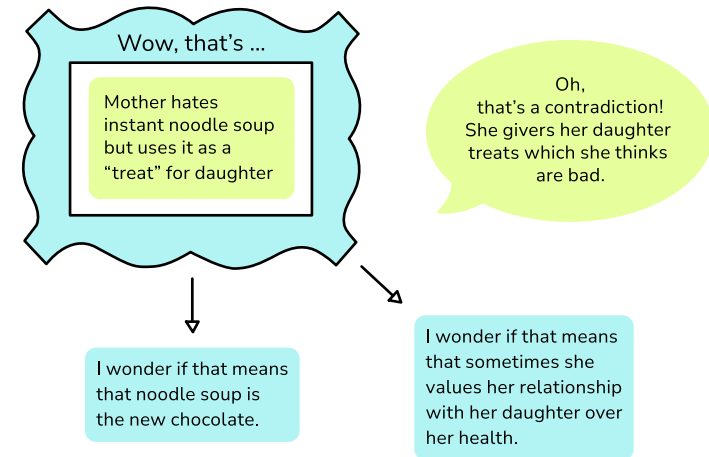
## Goals *What do we want to achieve by using this method?*

- To identify the most interesting insights from unpacking, and separate them from the rest of the information shared
- To focus the team's attention on interesting findings
- To infer meaning/interpret the insights
- To converge and reduce the amount of data you have to work with

## Description *How does this method work?*

1. Team members select their favourite findings, based on their gut feeling, and place a “nugget frame” around these post-it(s). Depending on time and content, they may use 1–2 “nugget frames” to separate out the most interesting findings.
2. For each selected post-it, the team members have to explain why they selected it. Why do they find it particularly inspiring, exciting or surprising?
3. The team discusses the findings that have been selected. On separate post-it notes, they can start inferring meaning into these findings. They should start their interpretations with the phrase: “I wonder if this means ...”

## Example *How could this look?*



## Alternative Methods *What other methods can you use instead?*

- Clustering
- 2x2 matrix

## Pitfalls/Hints

- Nuggeting does not equal “voting”. It helps untargeted team conversations to find a focus on possible relevant directions to further explore.

# Sensemaking Ladder

In which phase is this method used frequently?



## Goals What do we want to achieve by using this method?

- To identify relevant needs and problems within your research data
- To give meaning to your findings and gain new insights

## Description How does this method work?

1. Based on a selected quote, team members write down all needs/goals they can detect in that statement (note: relate to other findings if necessary to add context and meaning. Also: this is where interpretation starts!).
2. After they shared everything and exchanged with each other, they now discuss which needs seem to be unsatisfied and particularly relevant. Eventually, they make a selection.
3. For the chosen need, the team now collects potential reasons they can identify (via connections and interpretations) why the need is unsatisfied/not solved. This means, they collect problems/barriers they can detect. Here too, they make a selection for the problem they consider most relevant.
4. As a result, they have the key ingredients to carry on, that is User + Need + Problem. This process can be applied for several selected quotes, resulting in different needs and problems.

## Example How could this look?

### Insert interesting QUOTE

"I just recently bought a purple carrot, really unique. Unfortunately, it got lost in the fridge because I did not know what to do with it. Eventually I had to throw it away, which broke my heart."

### What NEEDS can you detect?

She wants to protect "weird vegetables" from being dismissed.

She wants to feel special/unique by using uncommon ingredients.

### Most relevant/unsatisfied NEED

She wants to feel special/unique by using uncommon ingredients.

### Which PROBLEMS/OBSTACLES are in the way?

She doesn't know how to utilize "weird vegetables".

She doesn't know where to get the special ingredients.

She loses track of her items in the fridge and throws some away eventually.

### Most relevant PROBLEM/OBSTACLE

She doesn't know how to utilize "weird vegetables" and has to throw away many of them eventually.

## Alternative Methods What other methods can you use instead?

## Pitfalls/Hints

- Note that the order of steps as well as the formulation is not carved in stone. Depending on the quote, eg., it might be easier for the team to start with extracting problems and then see what needs/goals stand behind.
- Also note, that there is not always a problem to detect, but perhaps simply a strong need or a specific behaviour that can already serve as inspiration for new design.

# Point of View (POV)

In **which phase** is this method used frequently?



## Goals *What do we want to achieve by using this method?*

- To reframe your initial challenge statement from the perspective of a chosen user
- To prioritise and focus on one specific part of the initial challenge that inspires the team
- To synchronise your team. The POV should always be used as a reference point to which you can return to during the rest of your design thinking journey

## Description *How does this method work?*

1. The team selects one top insight, or a combination of similar insights. Using this, they reformulate the original challenge into a user-centred POV statement.
2. This insight is reformulated into a short, descriptive story:
  - e.g. a) We met ... (USER)  
We were inspired to realise ... (NEED, based on observation)  
It would be life changing if ... (INSIGHT, based on interpretation)  
[In a world where ... (CONTEXT, RESTRICTION)]
  - e.g. b) User ... (USER)  
Needs ... (INSIGHT, based on interpretation)  
Because ... (NEED, based on observation)  
[Context ... (CONTEXT, RESTRICTION)]
  - e.g. c) User ... (USER)  
needs a way to ... (NEED)  
The problem is ... (INSIGHT, = obstacle for need fulfillment)

## Example *How could this look?*

### We met ...

Lena, a committed and loving mother, who loves a healthy lifestyle.

### We were amazed to realize ...

that she uses unhealthy snacks to treat her daughter even though she feels guilty about it.

### It would be life changing ...

for her to have convenient and "healthier" / "guilt free" options to bond with Lilli!

### User

Lena, a committed and loving mother, who loves a healthy lifestyle.

### Needs ...

to have convenient and healthier options to bond with her daughter Lilli ...

### Because ...

Lilli prefers fast food and Lena does not want to stop treating her.

## Alternative Methods *What other methods can you use instead?*

- Jobs to be done
- User Stories

## Pitfalls/Hints

- Introducing the POV statement early can help guide your team.
- Make sure your POV statement does not have a solution implied/baked into it!
- Try out a few different POVs. Through this comparison the team will gain a clearer feeling for which direction they want to follow and where the most potential lies.

# “How Might We” Questions

In *which phase* is this method used frequently?



## Goals What do we want to achieve by using this method?

- To reformulate your POV as an insight-based, actionable question which you can use as a springboard to start brainstorming ideas during IDEATION

## Description How does this method work?

1. Using the POV, the team formulates a “How Might We” (HMW) question by reformulating the problem statement into an actionable question.
2. Play with formulating the question to be broad enough that there are a wide range of solutions but narrow enough that the team has some helpful boundaries.

## Example How could this look?

Our mission: HMW help Lena to find guilt free options to bond with her daughter Lilli?

Our mission: HMW create a baby warning device that helps parents in remote villages give their dying infants a chance to survive?

## Alternative Methods What other methods can you use instead?

- “How to” Questions

## Pitfalls/Hints

- Depending on the extent of the challenge/topic, you might also pose several HMW questions going into different directions. To break down one HMW question into smaller pieces to make a following brainstorming easier, use H2 questions.

# Brainstorming

In *which phase* is this method used frequently?



## Goals What do we want to achieve by using this method?

- To come with a variety of possible ideas that solve the problem(s) you've identified
- To come up with specific ideas to answer your "How to ..." questions

## Description How does this method work?

1. Ensure everyone is equipped with pens/post-its and familiar with the brainstorming rules.
2. As a team and based on a specific question, each person starts writing down ideas on post-its.
3. This brainstorming can be done in different ways, for instance:
  - a) The team can brainstorm silently, and then share afterwards.
  - b) The team can brainstorm out loud, with each person saying their idea out loud and stick their post-its on the board.
  - c) Try out a few variations/alternative methods.
4. When you feel you've gathered enough ideas, stop ideating and start clustering what you have. Name your clusters to get a better overview of the different options.

## Example How could this look?

H2 make instant noodles healthier?  
H2 make Lilli & Lena bond without food?  
H2 make Lilli like healthy food as much as chocolate?



## Alternative Methods What other methods can you use instead?

- Co-Creation Session
- Idea Shopping
- Bodystorming
- 6-3-5
- News of the Future

## Pitfalls/Hints

- Moving to another space can help your team think creatively
- Start with a simple method (e.g. silent brainstorming) and then move towards more adventurous ones (see "Alternative Methods")
- Give enough time, the team needs to warm into this step
- Remind the team to put just one idea per post-it.
- Remember that solutions can be arranged on three levels of granularity: vision – idea – feature.

# Superhero Brainstorming

In *which phase* is this method used frequently?



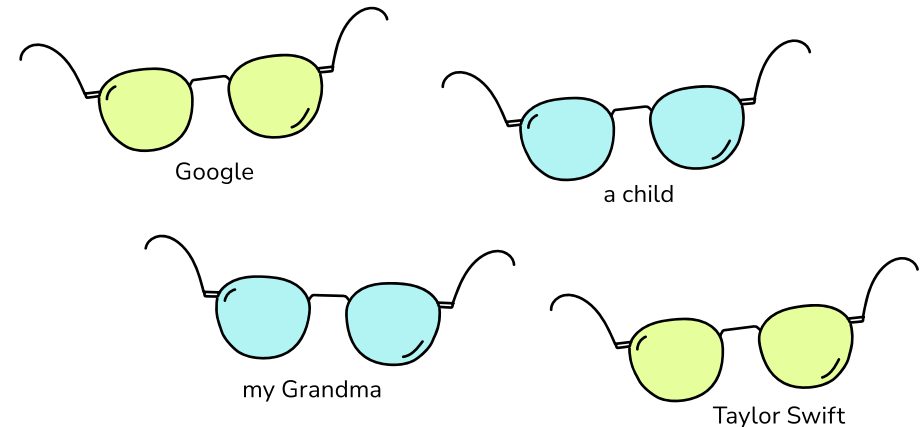
## Goals *What do we want to achieve by using this method?*

- To think about how to solve your “How to” and “How Might We” questions from a different angle
- To come up with ideas that go beyond the obvious solutions

## Description *How does this method work?*

1. As a team, think of a few different characters or institutions that you find inspiring, or that solve problems in an innovative way. These could be real-life, or fictional (e.g. Google, a Scandinavian country, your grandmother, a child, Superman, Elon Musk, etc.).
2. Now select one of these perspectives, and one of your “how might we” or “how to” questions.
3. Start brainstorming ideas through the lens of this perspective. Keep going until ideas start drying up.
4. Select a new perspective, a new brainstorming question, or both. Do another round of brainstorming!
5. Once you have enough ideas you can start clustering them and move on to idea selection.

## Example *How could this look?*



## Alternative Methods *What other methods can you use instead?*

- Bodystorming
- Brainstorming
- Reverse Brainstorming

## Pitfalls/Hints

- If you are struggling to think from the new chosen perspective, take a couple of minutes to brainstorm what kind of attributes or attitudes this person or institution has. E.g. Elon Musk is a visionary who believes in the power of technology; your grandma prefers simple and analogue interactions.
- Experiment with diverse perspectives. If your challenge is tech-oriented you might discover much more interesting ideas from the perspective of your grandmother!

# Bodystorming

In *which phase* is this method used frequently?



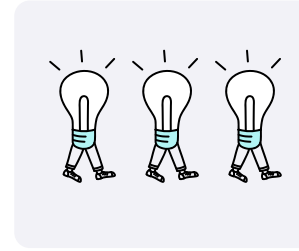
## Goals What do we want to achieve by using this method?

- To actively involve the body and the space, rather than just the brain in the process of ideation
- To come up with a large quantity of different ideas

## Description How does this method work?

1. Select a few brainstorming (“HMW”, “H2”) questions.
  - a) Idea Train: everybody lines up with a pen and sticky notes. Select a brain storming question and start walking in a line, calling out ideas and solutions. Write ideas down on sticky notes and stick them on the back of the person in front of you. After a few minutes, everyone turns around and starts walking in the other direction, using the ideas on the back of the person in front of them as inspiration.
  - b) Starfish: the team lies down, so that all their heads are in the middle, forming a star shape. Read out a brainstorming question. Each time someone has an idea, they say it out loud and write it on a sticky note.
  - c) Hot Potato: the team stands in a circle. A small soft ball or object is thrown between people in the circle– each time someone receives it they have to quickly come up with an idea.
2. Once you have gathered many ideas, you can start clustering them.

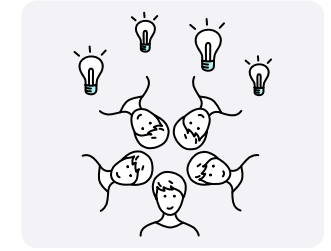
## Example How could this look?



Idea Train



Hot Potato



Starfish

## Alternative Methods What other methods can you use instead?

- Bodystorming
- Brainstorming
- Reverse Brainstorming

## Pitfalls/Hints

- These methods are great to get when you are feeling uninspired, stuck, or tired, as the physical action helps get the heart pumping and wakes up the brain.
- Use these methods for a change of scenery: go outside, lie on the grass, or go to a quiet cosy area.
- These methods can be uncomfortable for some team members, especially at the beginning. It is best to warm your team up first with a few round of simple brainstorming, and then you can try out these more wild methods!

# Concept Prototype

In **which phase** is this method used frequently?



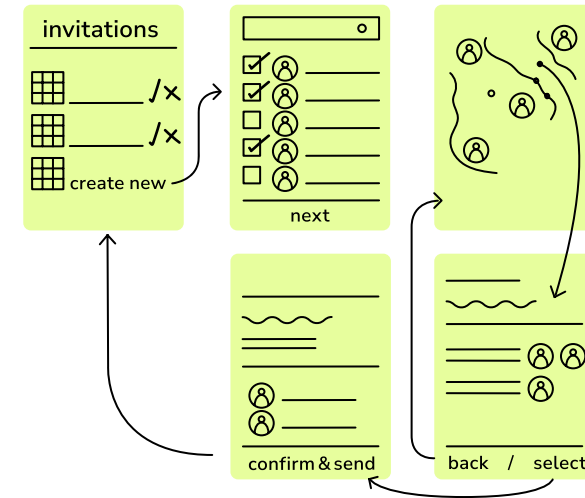
## Goals What do we want to achieve by using this method?

- To come to a clearer understanding as a team of what the idea /solution is, and how it works
- To describe the basic concept of your idea/solution in a visual way
- To start to define how it would function, look, in which contexts it would be used, etc

## Description How does this method work?

1. As a team, make the idea/solution visual. You may do this in various different ways, for example:
  - a) Each person individually fills out an “Idea Napkin” template, and then presents it to the team.
  - b) Each person builds an individual prototype using the materials around them, and then presents it to the team.
  - c) The team sketches/builds a prototype together, and discusses how different elements would look and function.
  - d) The team builds a prototype together in silence. After it is built, they start to discuss what they built together.

## Example How could this look?



## Alternative Methods What other methods can you use instead?

- Idea Napkin (which is a type of concept prototype)

## Pitfalls/Hints

- Whatever way you start, make sure you end up with a physical, tangible prototype at the end

# Testing Prototype

In **which phase** is this method used frequently?



## Goals *What do we want to achieve by using this method?*

- To build a prototype for the TEST with users
- To build a prototype which allows the team to test specific functions and features of their solution
- To build a prototype to test whether the solution addresses the user needs as formulated in the POV (or, to potentially discover new user needs)

## Description *How does this method work?*

1. As a team, discuss and write down what the solution must what functions it must fullfil. e.g. the solution is an airport security scanner tray with different compartments for the user's belongings. It must therefore be light enough to carry, the right size to stack and fit through the machine, be big enough to fit all the contents.
2. Build a prototype with these questions in mind. Make sure the prototype is built in such a way which allows you to test these questions.
3. Before you go out to test, list down what you want to find out about the prototype (size, shape, weight, etc.) and about the user (Does this make the user feel more in control of their belongings? Do they feel less stressed out? etc.)  
Hint: the questions which you want to ask the user are usually simply reformulated from your POV statement, HMW or H2 questions.

## Example *How could this look?*

### POV

User feels like she might accidentally forget her belongings during the stressful airport security check, because she puts them into different trays.

### Idea / Solution

A tray with different compartments for all her items.

### Testing Questions:

Does this solution make your user feel like she has control over where her belongings are? Does your user feel less stressed out? Do all her belongings fit into one tray? Other users: Is the airport security staff able to use and stack up the trays? Do the trays fit into the security scanner?

## Alternative Methods *What other methods can you use instead?*

## Pitfalls/Hints

- When testing, teams are often very focused on the prototype and its functions and less on whether it addresses the user's needs. Make sure you guide them to.

# User Test

In *which phase* is this method used frequently?



## Goals *What do we want to achieve by using this method?*

- To test whether your solution/idea fulfils the needs of your user and the critical functions
- To deepen your understanding of the user, problem and/or solution

## Description *How does this method work?*

1. With their prototype, the team goes out into the field to test it with potential users. If you have a very specific user/context, then try to organize testing rounds in those locations or with those users.
2. Find a person to test with, and give them the prototype. Apply the rules: “show, don’t tell” and “testing is not pitching”. The prototype should be as self-explanatory as possible, so your team should not need to explain it at length.
3. Apply the same principles as used during user interviews in the OBSERVE phase. One person leads the testing, others observe and write down feedback as quotations.
4. After testing, let the person give feedback or new ideas and maybe ask specific questions.

## Example *How could this look?*



## Alternative Methods *What other methods can you use instead?*

- Immersion (test the prototype yourself)

## Pitfalls/Hints

- It can happen that you discover alternative users or use cases.
- Test your testing skills with coaches/another team!

# Feedback Grid

In **which phase** is this method used frequently?



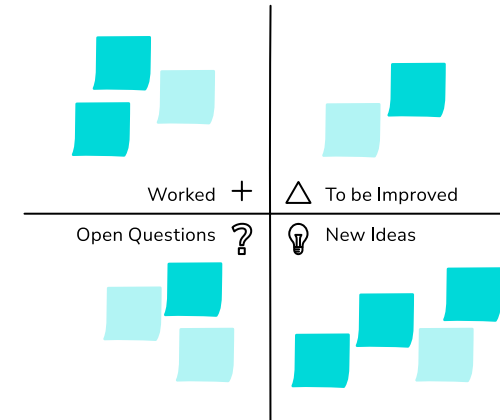
## Goals What do we want to achieve by using this method?

- To unpack and organise feedback from user testing in a visual and constructive way
- To guide your next steps in how to improve your idea or prototype

## Description How does this method work?

1. On a whiteboard, draw a 2x2 grid and add the following categories:
  - + Worked
  - △ To be improved
  - ? Open Questions
  - 💡 New Ideas
2. After testing, each team member has a few minutes to write the most important learnings on post-it notes. Encourage your team to capture and share quotations.
3. Based on the feedback, discuss and decide on next steps as a team. Would you like to adapt the prototype, or work on a different idea altogether?

## Example How could this look?



## Alternative Methods What other methods can you use instead?

- Learnings Grid

## Pitfalls/Hints

- This method is only useful for improving the prototype or idea. The learnings grid is more appropriate for the team to reflect on different levels about their work.
- You can show this grid to your team before or after user testing. If you give this grid to your team before testing you will save time. However, they will be limited by the four categories and might miss other important insights from the testing.

Sign up for our [newsletter](#) and receive the latest updates about the HPI d-school directly in your mailbox.

[LinkedIn](#)

[Instagram](#)

[YouTube](#)

[www.dschooll.de](http://www.dschooll.de)