STRATEGIC DESIGN THINKING FOR EVERY DAY
THE DESIGN THINKING PROCESS

Unlock Your Innovation Capacity

Complexity & Constraints   Design Thinking

Understand · Observe · Point of View · Ideate · Prototype · Test

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THE DESIGN THINKING PROCESS

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What is Strategic Design Thinking?

Methods & Tools

The Typical Perception

Strategic Design Thinking

INTERVIEW TIME TIMER PROTOTYPE PROCESS

Principles

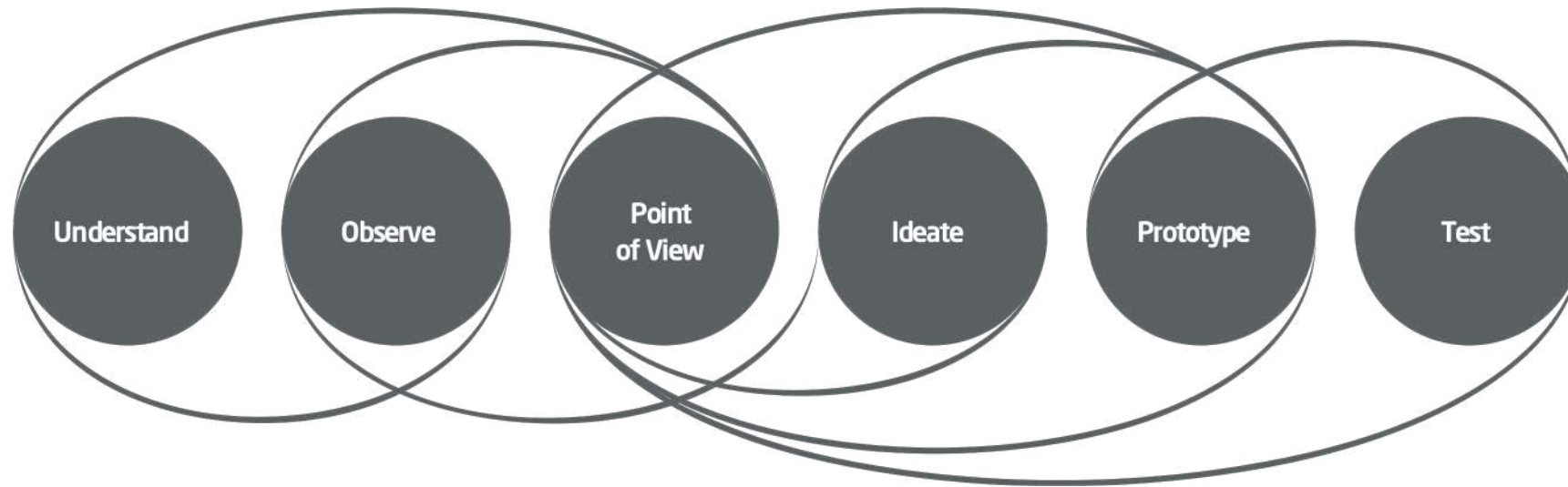| SPACE	DIVERSITY	EMPATHY	SYNTHESIS	ITERATION	PROTOTYPING	STORYTELLING	ANALOGY	SYSTEMS THINKING
▶ Design space that defines (inter-)action	▶ Enable selforganisation of teams for high performance creativity	▶ Step into your user's shoes to get game-changing inspiration	▶ Make sense of data for a common stepping stone	▶ Fail early to learn together at high speed	▶ Accelerate decisions by making ideas tangible	▶ Involve the collective mind and heart	▶ Use the known to engage with the new	▶ Manage complexity by interrelated actions

Mindset

HUMAN CENTEREDNESS ... DIVERSE COLLABORATION... LEARNING THROUGH EXPERIMENTATION...

The Design Thinking Process

The Design Thinking Challenge

CHALLENGE STRUCTURE:
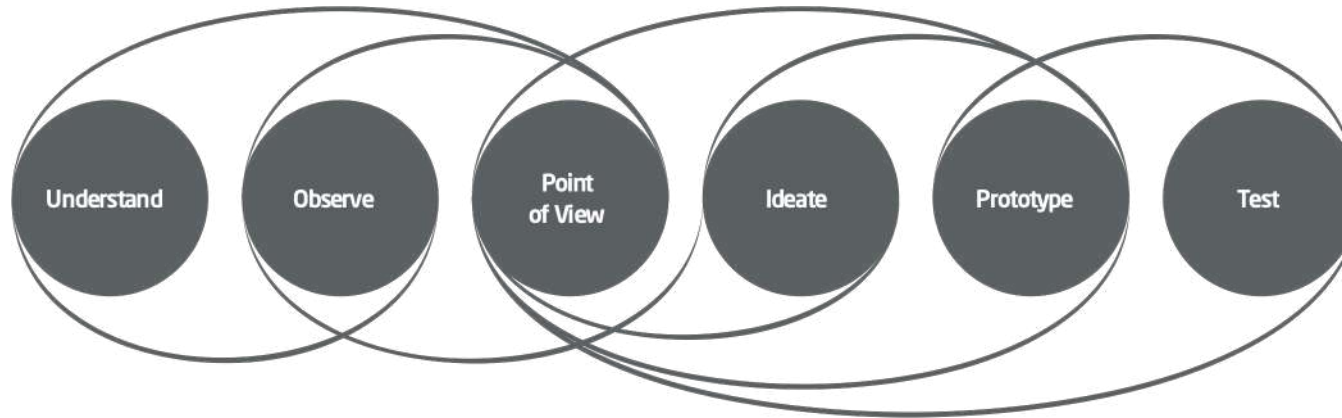
Redesign the
"xy"-experience
In a world where (constraint, urgency)

EXAMPLES:

- Redesign the **meeting experience** in a world where we spend 70 % our working time in there.
- Redesign the **lunch experience** in a world where out-of-home eating is the new normal.

Understand   Observe   Point of View   Ideate   Prototype   Test
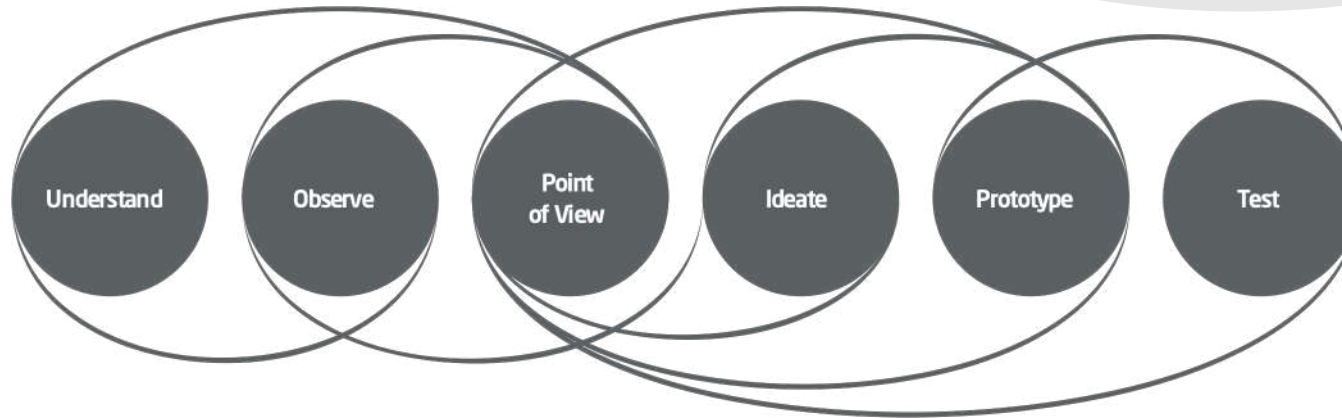
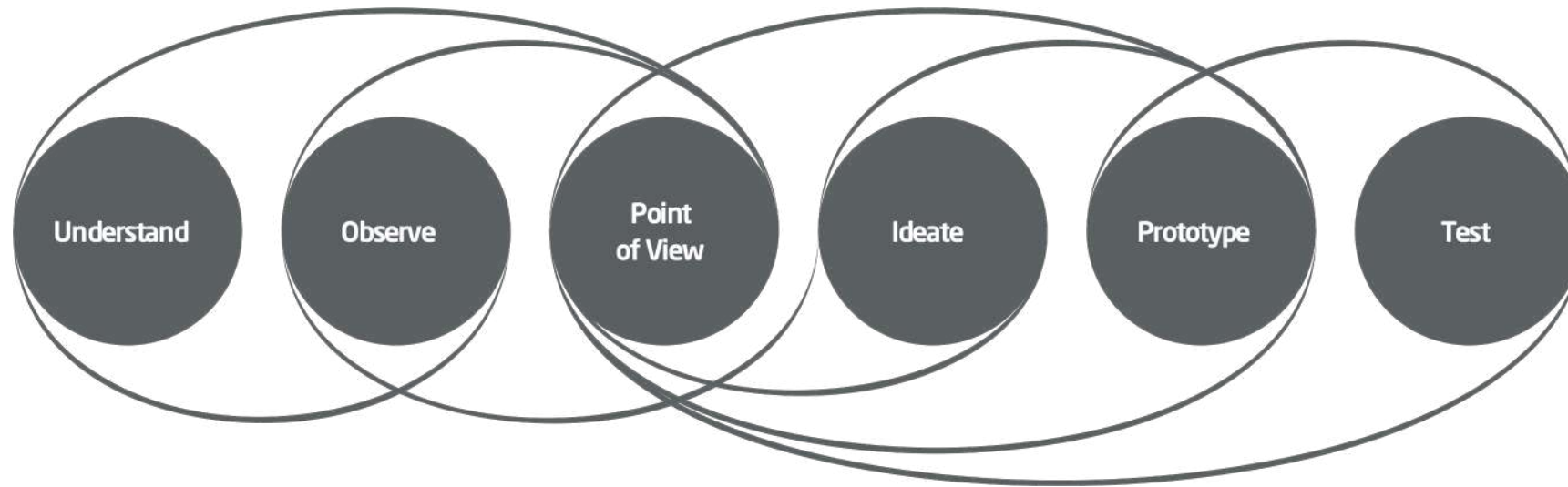# The course Design Challenge

CHALLENGE STRUCTURE:

Redesign the

"xy"-experience

In a world where
(constraint, urgency)

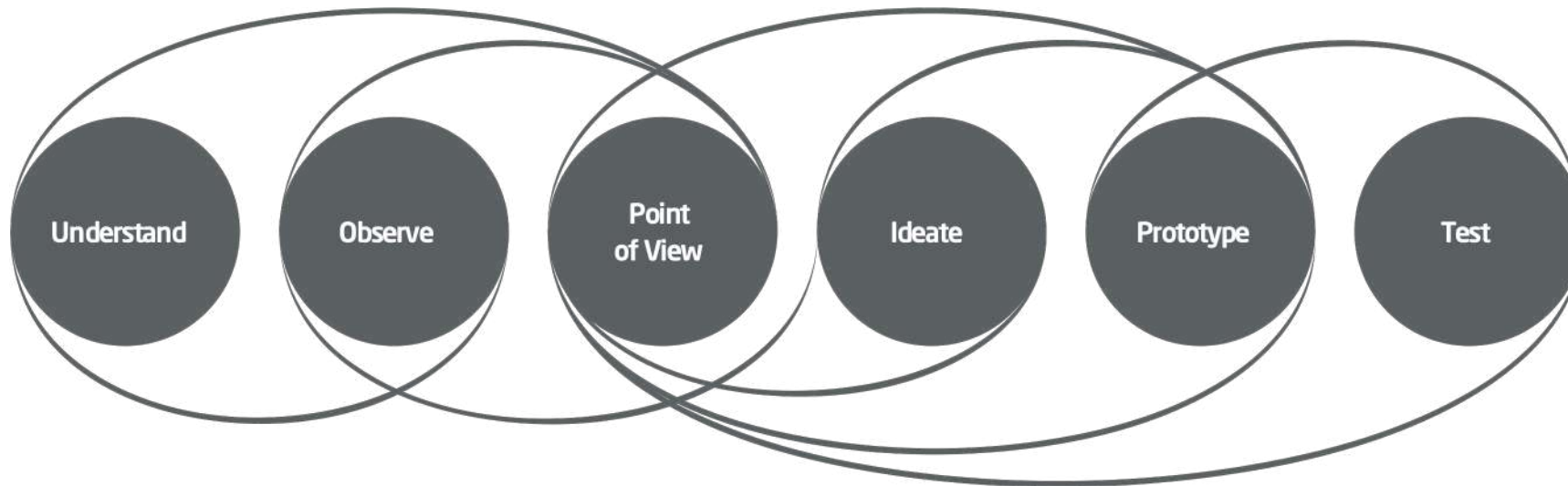**Re-Design the
Learning Experience**
in a world where
schools do not exist.

Understand   Observe   Point of View   Ideate   Prototype   Test

The Design Thinking Process

The Design Thinking Process

Understand — **Observe** — **Point of View** — **Ideate** — **Prototype** — **Test**

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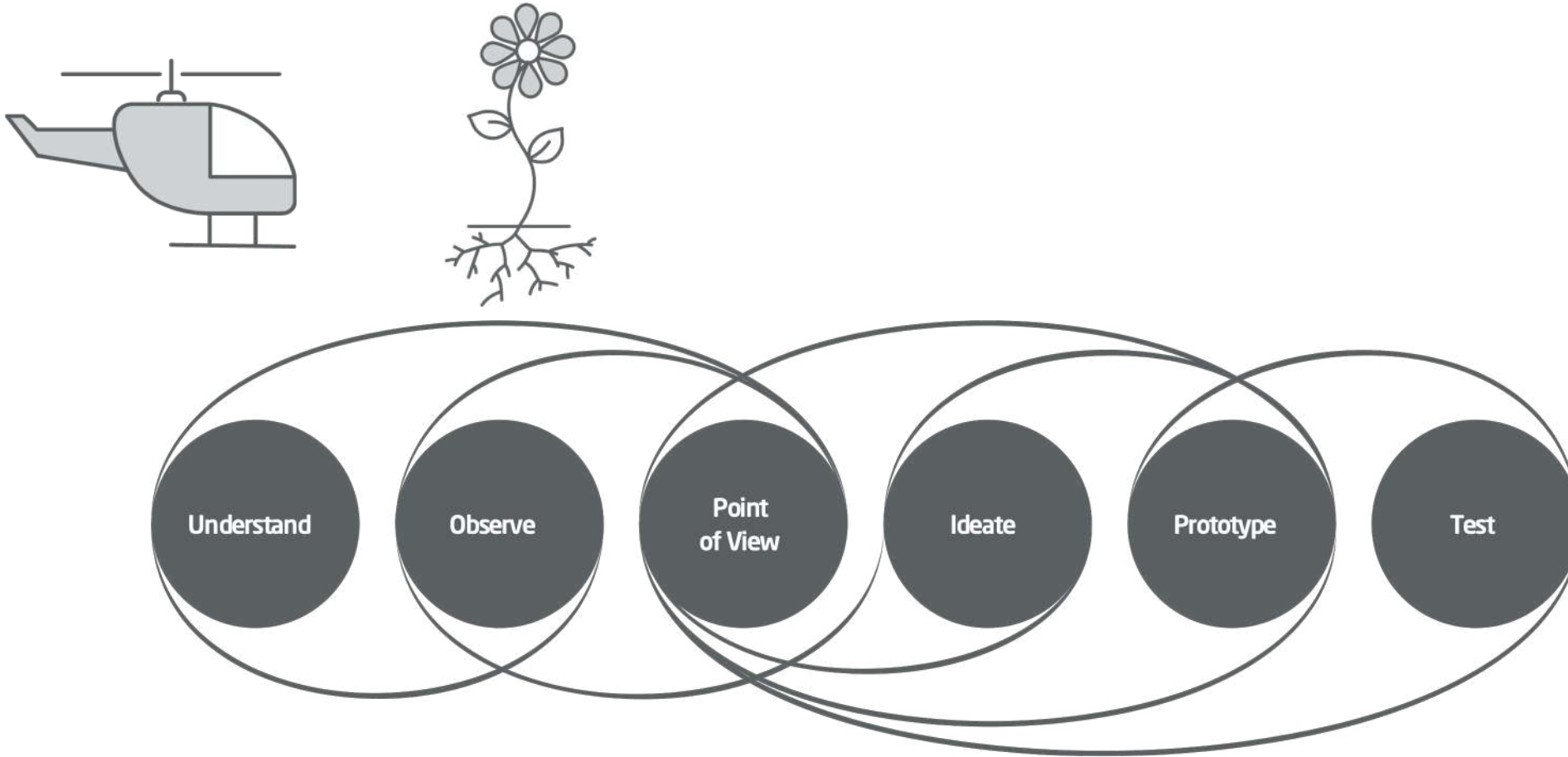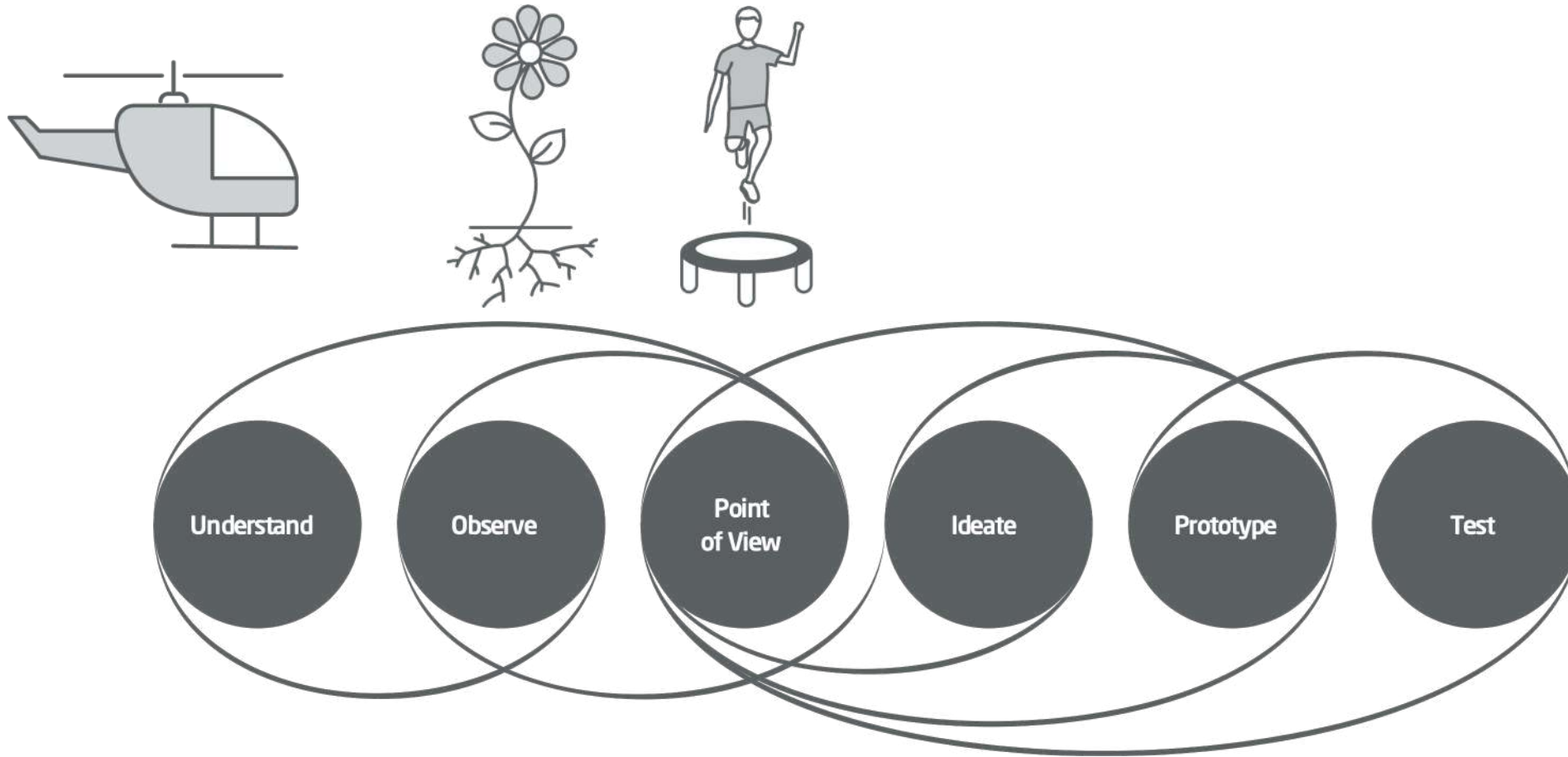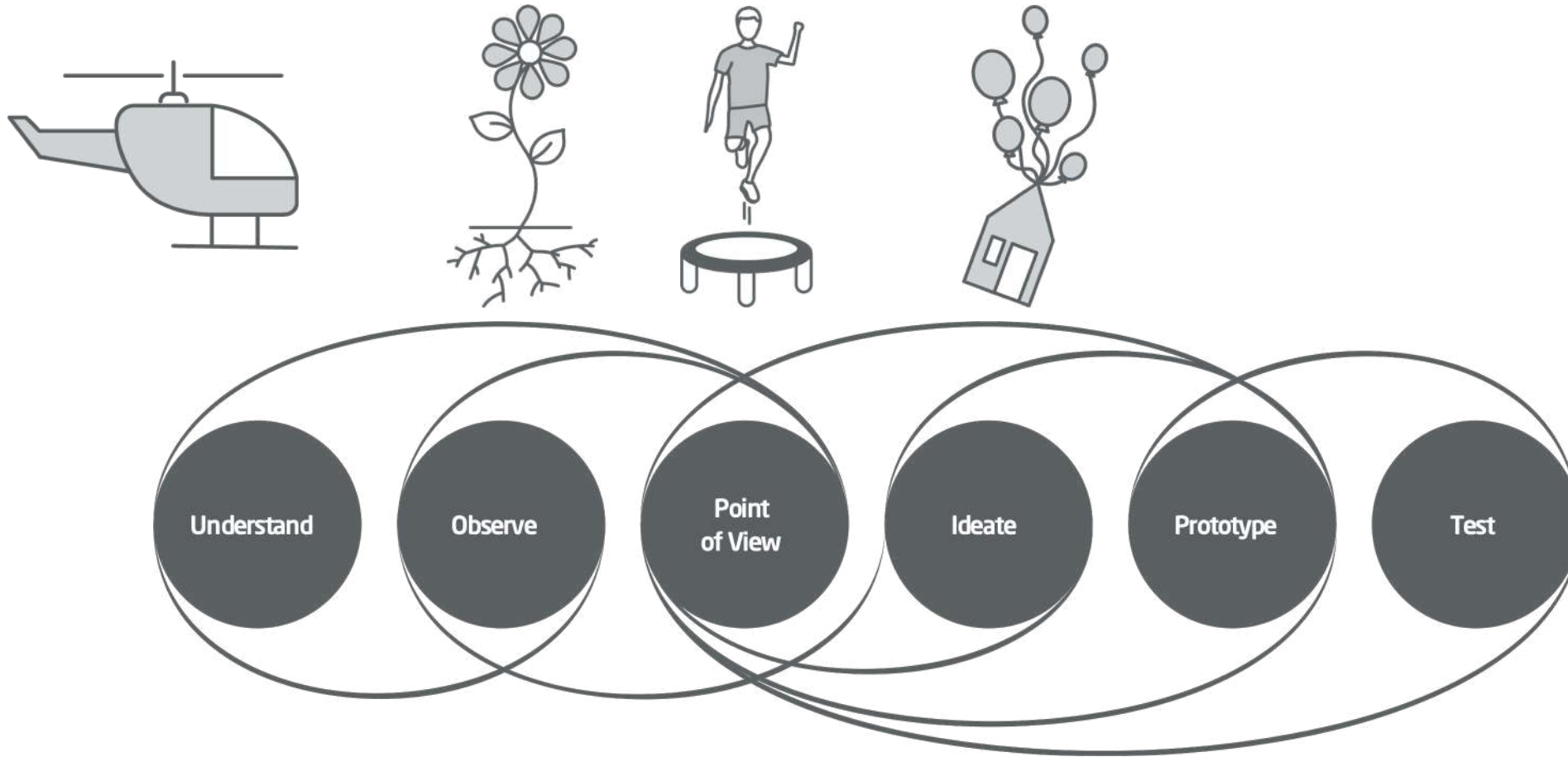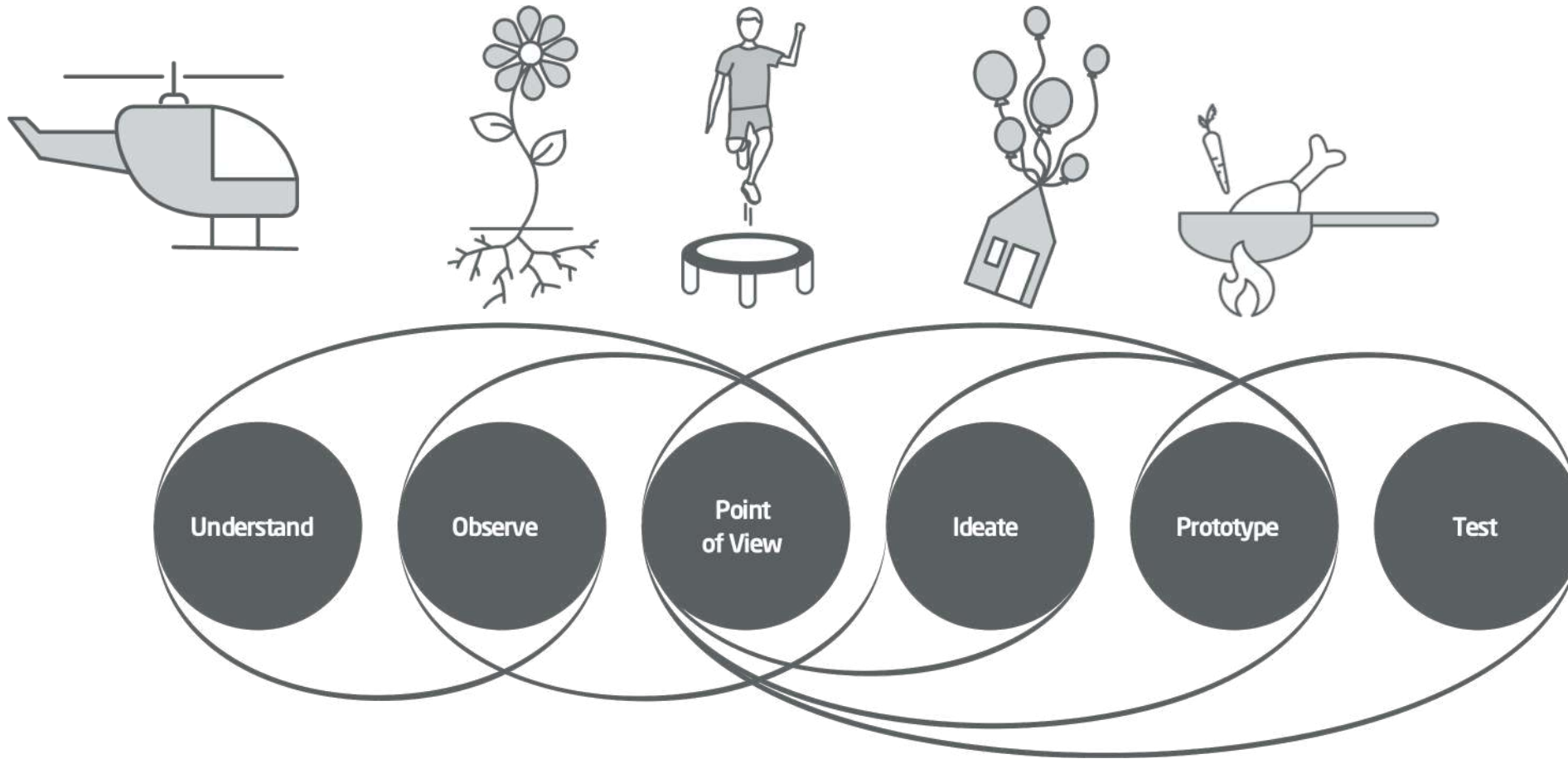HPI Academy · Education for Professionals

The Design Thinking Process

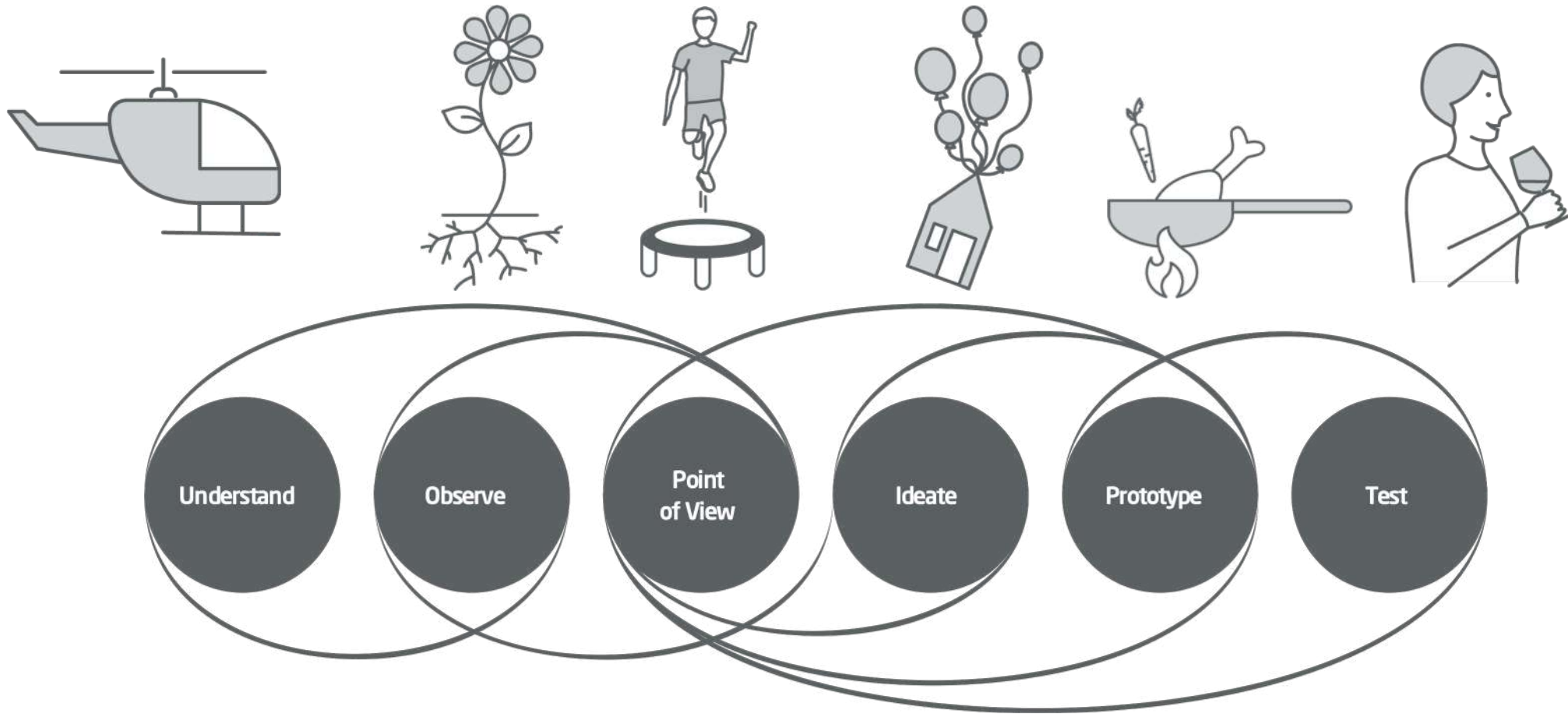# The Design Thinking Process

The Design Thinking Process

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The Design Thinking Process

Understand | Observe | Point of View | Ideate | Prototype | Test

Iteration

Understand • Observe • Point of View • Ideate • Prototype • Test

Strategic Design Thinking for Every Day

HUMAN NEEDS
AS INNOVATION SOURCE

MULTIPERSPECTIVITY
AS INNOVATION AMPLIFIER

EXPERIMENTS
AS INNOVATION MOTOR

Module 1 | Module 2 | Module 3 | Module 4 | Module 5 | Module 6 | Module 7 | Module 8 | Module 9

EMPATHY
▸ Step into your user's shoes to get game-changing inspiration

PROTOTYPING
▸ Accelerate decisions by making ideas tangible

SYSTEMS THINKING
▸ Manage complexity by interrelated actions

DIVERSITY
▸ Enable selforganisation of teams for high performance creativity

SYNTHESIS
▸ Make sense of data for a common stepping stone

ANALOGY
▸ Use the known to engage with the new

SPACE
▸ Design space that defines (inter-)action

ITERATION
▸ Fail early to learn together at high speed

STORYTELLING
▸ Involve the collective mind and heart

Under-stand | Observe | Point of View | Ideate | Proto-type | Test | Observe | Point of View | Proto-type | Test

Strategic Design Thinking for Every Day

The Methods and Templates along the Way

» **Observe and connect emotionally to a user – conduct an interview.**
You want to discover needs and motivations regarding the course challenge.

PREPARATION

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3. Before the interview, remind yourself that you want to discover something you don't know yet. You want to activate your mirror neurons. Watch attentively. Connect emotionally to your interview partner. Ask "why" when facts are told to dig into emotions. Let the other have at least 80% of the conversation time.

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4. Take notes during the interview, but really focus on the other: observe mood-changes and notice topics and expressions that are repeated.

5. After latest 20 minutes, end the conversation and thank the other.

DOCUMENTATION (25 min)

Capture your most surprising findings and sort your empathy data.

First name, age, occupation of interview partner and what experience was it about?

Most positive quote:

Most negative quote:

Functional needs:

Emotional needs:

Your name and contact information optional

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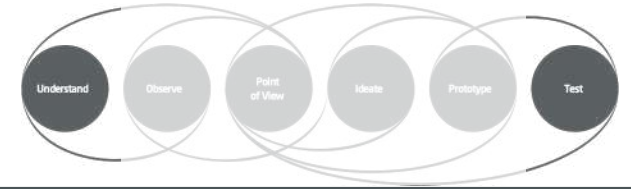Most negative quote:

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Understand/Testing Prep Method

STAKEHOLDER MAP

» **Test your prototyped idea in the needs system.**
   You want to get feedback from stakeholders and users to your initial idea.
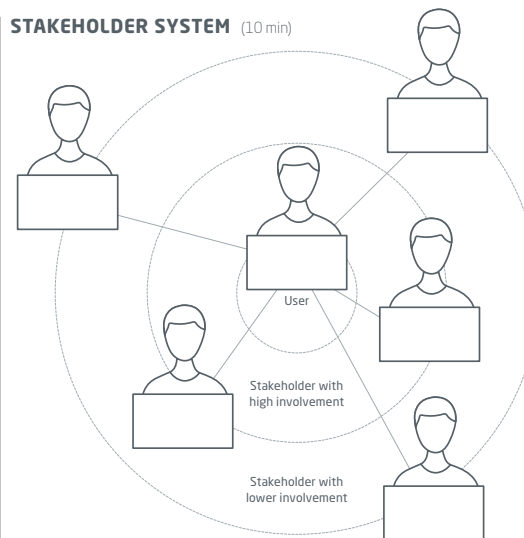
PREPARATION

1. Think of your challenge system. Fill out the Stakeholder System in order to see the different key players within.

2. Think about possible relations between the stakeholders (influence, decision taking, ...)

3. Recruit three testers: two different key players and one initial user to test your prototype with. Ask them for 10 minutes of their time.

4. Have (a photo of) your prototype ready to show.

5. Fill in Interactive Testing template with the photos of your Comic Storyboard.

INTERACTIVE TESTING STEPS (20 min)

1. Introduce the challenge and thank the testers for their time.

2. Present your idea by leading through the Comic Storyboard.

3. Show (a photo of) your prototype.

4. Then ask for likes, dislikes, open questions and ideas. Fill in the Testing Feedback.

5. After ideating together, draw two more sketches to fill in the blanc steps. Integrate the co-created sketches into step 3. and 4. to complete your Comic Storyboard.

Go through the Interactive Testing steps with each of the three testers.

STAKEHOLDER SYSTEM (10 min)

User

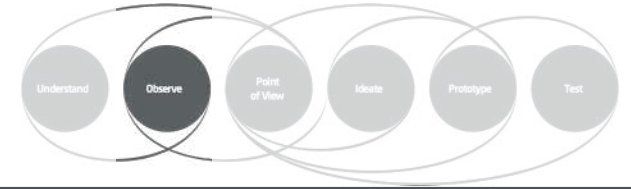Stakeholder with high involvement

Stakeholder with lower involvement

Your name and contact information optional

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Observe Method

INTERVIEW

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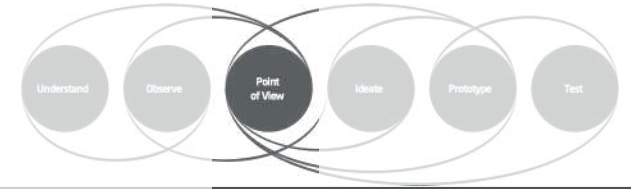Most negative quote:

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POV Method

Point Of View

User

The person for whom you design

Discovery

Something that you learned that was surprising to you

Design Task

How might we help to fulfill the functional or emotional need?

NEED MIXER

Module 5

» **Make sense of interview data by analyzing multiple users' perspectives.**
You want to deconstruct, mix and reconstruct findings for a synthesized Point of View (POV).

PREPARATION

1. Find a partner in the course community.

2. Take your filled-out Interview template from Module 1.

3. Watch the video tutorial and get familiar with the Synthesis Frameworks.

STEPS (45 min)

1. 10 min: Present your interview documentation to your partner. Start to think about possible connections between findings (positive, negative quote, functional and emotional need).

2. 10 min: Play around with your findings and explore different Synthesis Frameworks. What are you new discoveries?

3. 20 min: Create different POV's using the discovery, describing users that fit to these discoveries and new How-Might-We-Questions.

4. 5 min: Choose one of the POV's that gives you the strongest motivation to directly start brainstorming ideas (which you can do if you want).

POINT OF VIEW

2. User: "We met …"

1. Discovery: "We were surprised …"
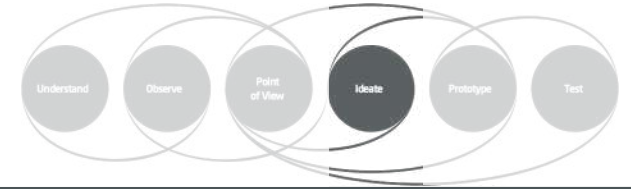
3. Design Task: "How might we help … ?"

Your name and contact information optional

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Ideation Methods

IDEA SPRINGBOARD

 Module 2

» **Translate your observation of a user's need.**
First you want to come up with ideas how to help the user to fulfill the observed need.

TRANSLATION (10 min)

Formulate your How-Might-We-Question.

4 min: **How might we help** Name of your user

to Need or quote that you want to find an answer to. Choose from your interview documentation what inspired you the most.

3 min: **Who is an Extreme Performer in what you want to achieve for the user?**
Think of other fields of life.

3 min: **Come up with three ideas to solve the How-Might-We-Question.**
How would the Extreme Performers solve the problem? Take it as an inspirational springboard.
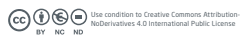
IDEA (5 min)

Select one idea and give it a name

Description Product, process, service, …

Key function for user Helps the user to better (functional need) …

Emotional benefit So that the user feels (emotional need) …

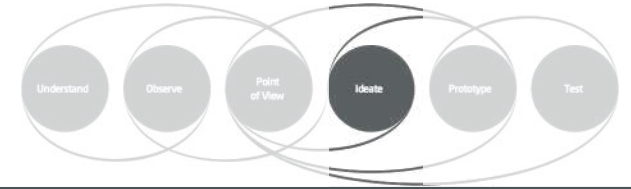**Your name and contact information** optional

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How-Might-We-Question

Extreme Performer

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Ideation Methods

IDEA ENERGIZER

» **Increase your creativity by getting inspired from various analogous fields.**
You want to energize your creativity.

PREPARATION

1. Get in contact with another course mate or someone from your personal background.
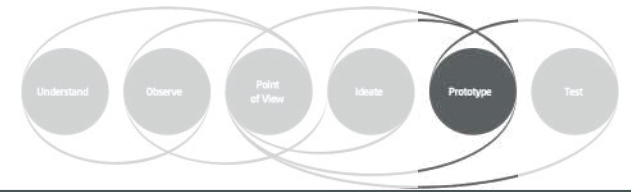
2. Get your POV of Module 5 ready.

STEPS (45 min)

1. 10 min: Analyze your POV's How-Might-We-Question and collect analogies that have similarities to the user's problem and/or the way the user should feel with your idea. Take these Analogy Finders as help:
   a) Who is doing well in what you want to achieve? (Extreme Performers)
   b) Which other field in nature, science, technology, culture or fiction shows similarities to your task?

2. 15 min: Select 3 Analogies that you like the most and visualize them. You can do that by drawing sketches or searching for pictures online. Afterwards, insert them on the right.

3. 5 min: Brainstorm possible solution. Go for quantity and go wild.

4. Select one idea that is the most user-centric, the most daring and innovative – and the one you personally would like to found a startup with. This is your new solution.

5. 15 min: Fill out the Solution Documentation template.

ANALOGIES

Your name and contact information optional

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Prototyping Methods

COMIC STORYBOARD

Module 2

» **Make your idea tangible.**
Build an interactive prototype that fulfills the user's need.

PROTOTYPING (15 min)

Build a quick prototype of your described idea.
Insert a photo of it here.

USER JOURNEY (15 min)

Draw a Comic Storyboard in four steps of how the user will interact with your prototype.

1. Situation/User   2. Before/Problem

3. During/Using Solution   4. After/Benefit

Your name and contact information optional

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Prototyping Methods

COMIC STORYBOARD

Module 2

» **Make your idea tangible.**
Build an interactive prototype that fulfills the user's need.
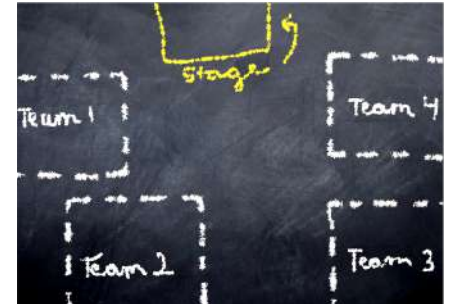
PROTOTYPING (15 min)

Build a quick prototype of your described idea.
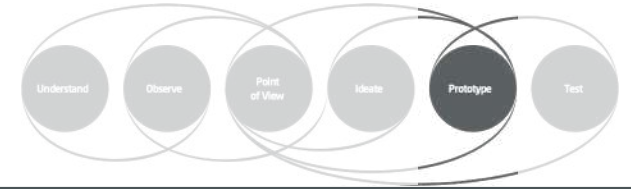Insert a photo of it here.

USER JOURNEY (15 min)

Draw a Comic Storyboard in four steps of how the user will interact with your prototype.

1. Situation/User

2. Before/Problem

3. During/Using Solution

4. After/Benefit

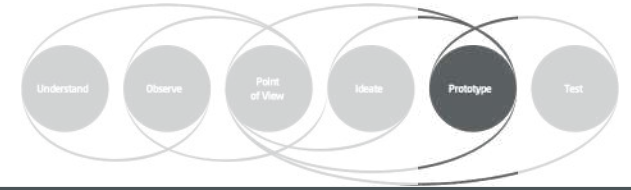Your name and contact information optional

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Prototyping Methods

DRAMA STORY CURVE

Module 9

» **Experiment the future by telling the story of your good solution.**
You want to narrate the story of your user in a Drama Story Curve with the goal of new beliefs.

PREPARATION

Take your Good Solution Documentation from Module 8. Have a partner you can tell your story to in the end.

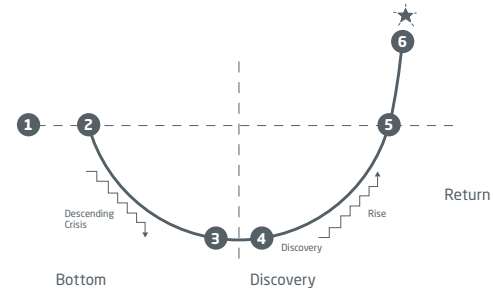Status quo   Challenge   Lesson learned

STEPS (45 min)

1. 20 min: Distill the main story elements of your good solution. First, go through the structure and think about the content elements that directly come to your mind. Then verify and describe the drama by writing down one sentence for each step.

2. 15 min: Translate your script into a visual movie storyboard. Draw a sketch for every step of the Drama Story Curve. Focus on the main message in each frame.

3. 5 min: Find a compelling title for your story.

4. 5 min: Get together with a course partner and tell your stories.

Descending Crisis   Discovery   Rise   Return

Title of Story   Bottom   Discovery

Your name and contact information optional

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Testing Methods

INTERACTIVE TESTING

Module 3

» **Test your prototyped idea in the needs system.**
You want to get feedback from stakeholders and users to your initial idea.

CO-CREATION
Insert the sketches of your Comic Storyboard.

1. Situation/User	2. Before/Problem	3. During/Using Solution
		Leave open for Co-Creation

3. During/Using Solution	4. After/Benefit	4. After/Benefit
		Leave open for Co-Creation

TESTING FEEDBACK
Fill in the Feedback Grid.

What worked:	What could be improved:
Questions:	New ideas:

Your name and contact information optional

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Testing Methods

INTERACTIVE TESTING
Module 3

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CO-CREATION
Insert the sketches of your Comic Storyboard.

1. Situation/User

2. Before/Problem

3. During/Using Solution
Leave open for Co-Creation

3. During/Using Solution

4. After/Benefit

4. After/Benefit
Leave open for Co-Creation

TESTING FEEDBACK
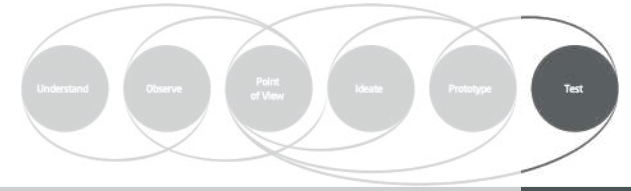Fill in the Feedback Grid.

What worked:

What could be improved:

Questions:

New ideas:

Your name and contact information optional

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CRITICAL FEEDBACK GRID
Module 8

» Transform failure into added value for your solution.
You want to iterate your solution by taking critical points as inspiration for your creativity.

PREPARATION

1. Take out the filled-out Solution Documentation template from Block 2.

2. Recruit one tester within the inner or wider Stakeholder System of your challenge to get feedback. Ask them for 15 minutes of their time.

STEPS (45 min)

1. 5 min: Conduct a feedback session by starting introducing yourself if necessary and clearly address your negative feedback objective.

2. 10 min: Present your solution with at least a visualization and a short explanation of what it is and in which situation the user could use it. Do not "sell", just share and encourage critical remarks.

3. 10 min: Document and cluster the negative feedback, consisting of critics about core function, specific aspects, personal feelings and the social system the solution is embedded in.

4. Choose the critique that you like the least. The more extreme and critical it is, the better it will serve you as a stepping stone for iterating your solution.

5. 5 min: Ideate for your iteration and make changes inspired by the critique:
a) What if I change the user?
b) What if I change the usage-situation?
c) What if I change the solution form, material or process?

6. 15 min: Document your iterated solution in the Good Solution template. You will need it for Module 9.

CRITICAL FEEDBACK GRID

Core function	Aspects
Personal feelings	Social system's reaction

Your name and contact information optional

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Teambuilding Methods
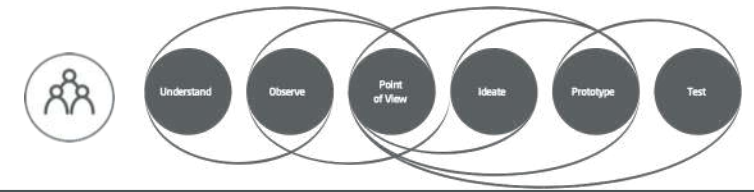
PERSONAL PROFILE

» **Describe your individual perspective that you bring to a diverse table.**
You want to define what is important to you, what you know and how you solve a problem.

PREPARATION

You have two possibilities to do the exercise:

a) You fill out the template for yourself to train the method application and to reflect about your own profile as a future team member.

b) Find a team partner (course peer, family member or friend) and fill out the Personal Profile for your partner after an interview.

STEPS (25 min)

1. 2 x 10 min: Interview or self-reflection. Fill out the template.

2. 5 min: Find a hero name for yourself / each other.
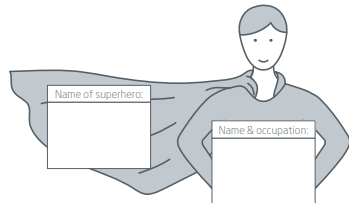
What is important to you: passions, experiences and other things you like to do

As a child, you liked to spend your time with:

Your most memorable experience in your early life is:

When you do not work, your favorite activity is:

What you know: existing expertise & skills

In school, you were best in:

Your profession requires deep expertise in:

Your main occupation every day is like (find an analogy):

How do you solve a problem: integration of new things
☐ You try out, do and experience the result (e.g. like a carpenter).
☐ You observe, create and feel the result (e.g. like an interior designer).
☐ You think, create concepts and do prototypes (e.g. like an architect).
☐ You see different elements of a whole, connect the dots to a framework that relates the single elements (e.g. like an engineer).

Your name and contact information optional

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TEAMBUILDING

» **Discover different perspectives and connection points.**
You want acknowledge the diversity of team members and build a common ground.

STEPS (20 min)

1. Fill out names, occupations and superheros that represent you.
2. 5 min: Spot your mutual uniqueness and connection points to the other.
3. 15 min: Create your Team Manifesto.
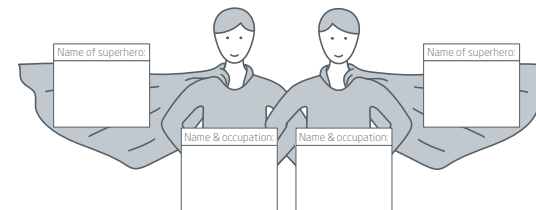
Your uniqueness and connection points:

TEAM MANIFESTO

Establish your goal and rules of interaction - and do not forget to give fun a place.
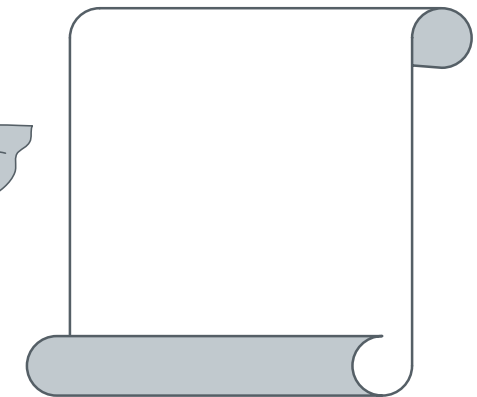
Your name and contact information optional

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Space Design Methods

SPACE DESIGN

Module 7

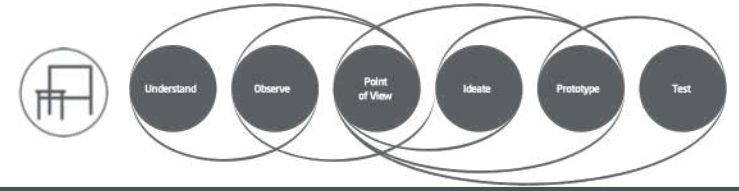» **Explore the impact of space on your behaviour.**
You want to reinvent your space so that it supports the experience you want to create.

SPACE ANALYSIS (15 min)

1. What activity/behavior should be supported by the space?

2. Define two mandatory criteria that are prerequisites for your activity/behavior (e.g. inspiration, concentration ...) and insert them into the parameter fields of the decision matrix. Then, fill out the decision matrix by sorting available spaces in your surroundings – even temporary ones – into the given fields.

High

Parameter b:

Low
High

Parameter a:

3. Select the field with the highest potential of both parameters. Describe the features and structure of your selected space and the missing ones that are needed to support your activity/ behavior.

SPACE REDESIGN (30 min)

4. As a Creative Starter, look for analogous fields that could inspire your space re-design.

5. Brainstorm solutions using the analogous fields as inspiration:

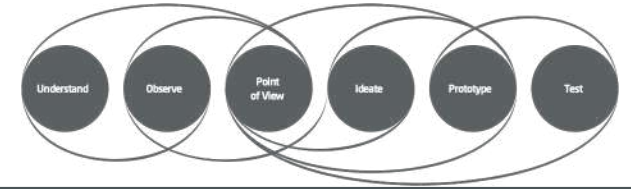6. And action! Change your space. Take a before and after picture and insert them here.

Your name and contact information optional

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Iteration Methods

HUMAN NEEDS **AS INNOVATION SOURCE**	**MULTIPERSPECTIVITY** **AS INNOVATION AMPLIFIER**	**EXPERIMENTS** **AS INNOVATION MOTOR**

Module 1	Module 2	Module 3	Module 4	Module 5	Module 6	Module 7	Module 8	Module 9
EMPATHY ▶ Step into your user's shoes to get game-changing inspiration	**PROTOTYPING** ▶ Accelerate decisions by making ideas tangible	**SYSTEMS THINKING** ▶ Manage complexity by interrelated actions	**DIVERSITY** ▶ Enable selforganisation of teams for high performance creativity	**SYNTHESIS** ▶ Make sense of data for a common stepping stone	**ANALOGY** ▶ Use the known to engage with the new	**SPACE** ▶ Design space that defines (inter-)action	**ITERATION** ▶ Fail early to learn together at high speed	**STORYTELLING** ▶ Involve the collective mind and heart

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Iteration Methods

HUMAN NEEDS	MULTIPERSPECTIVITY	EXPERIMENTS
AS INNOVATION SOURCE	**AS INNOVATION AMPLIFIER**	**AS INNOVATION MOTOR**

Module 1	Module 2	Module 3	Module 4	Module 5	Module 6	Module 7	Module 8	Module 9

STRATEGIC DESIGN THINKING PRINCIPLES

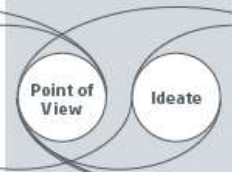**EMPATHY**
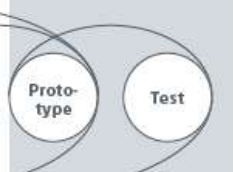▸ Step into your user's shoes to get game-changing inspiration

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▸ Accelerate decisions by making ideas tangible

SYSTEMS THINKING
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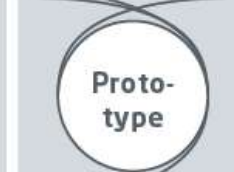▸ Design space that defines (inter-)action
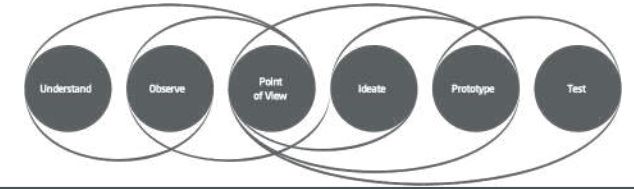
ITERATION
▸ Fail early to learn together at high speed

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IDEA DOCUMENTATION BLOCK 1 — Module 3

» **Review your idea after testing it in the system.**
You want to incorporate the feedback from stakeholders and users by adding details and/or modifications to your initial idea.

For documentation, paste your How-Might-We-Question from the Idea Springboard template here.

Draw a quick sketch of your iterated idea and insert a photo of it here.

ITERATED IDEA (15 min)
Name of the iterated idea

Description Product, process, service, ...

Key function for user Helps the user to better (functional need) ...

Emotional benefit So that the user feels (emotional need) ...

Your name and contact information optional

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SOLUTION DOCUMENTATION BLOCK 2 — Module 6

» **Define your solution that has been amplified by mutliperspectivity.**
You want to describe your solution more detailed as a basis for Block 3.

For documentation, paste your POV from the Need Mixer template here.

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SOLUTION (15 min)
Name of the solution

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GOOD SOLUTION DOCUMENTATION BLOCK 3 — Module 8

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Describe the critique that inspired your iteration and what you changed about your solution.

Draw a quick sketch or prototype your good solution and insert a photo of it here.

GOOD SOLUTION
Name of the good solution

Description Product, process, service, ...

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Your name and contact information optional

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Iteration Methods

Iterated Idea

Module 1	Module 2	Module 3
EMPATHY ▸ Step into your user's shoes to get game-changing inspiration	**PROTOTYPING** ▸ Accelerate decisions by making ideas tangible	**SYSTEMS THINKING** ▸ Manage complexity by interrelated actions

MULTIPERSPECTIVITY
AS INNOVATION AMPLIFIER

Module 4	Module 5	Module 6
DIVERSITY ▸ Enable selforganisation of teams for high performance creativity	**SYNTHESIS** ▸ Make sense of data for a common stepping stone	**ANALOGY** ▸ Use the known to engage with the new

EXPERIMENTS
AS INNOVATION MOTOR

Module 7	Module 8	Module 9
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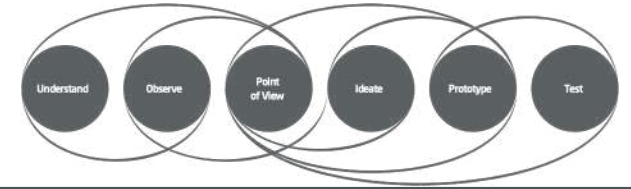
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Iteration Methods

Iterated Idea

Solution

EXPERIMENTS
AS INNOVATION MOTOR

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STRATEGIC DESIGN THINKING PRINCIPLES	STRATEGIC DESIGN THINKING PRINCIPLES	STRATEGIC DESIGN THINKING PRINCIPLES
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Module 4	Module 5	Module 6
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Module 7	Module 8	Module 9
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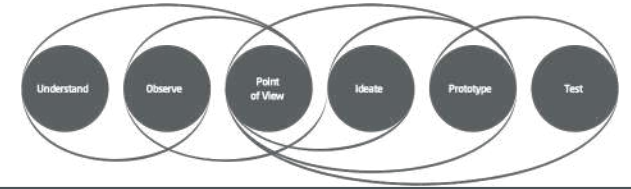**GOOD SOLUTION**
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Iteration Methods

Iterated Idea	Solution	Good Solution

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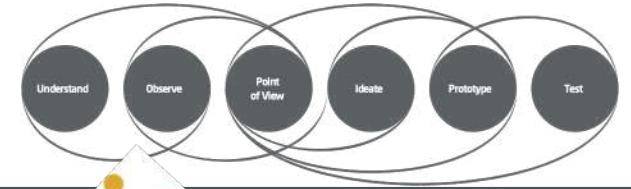
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What is Strategic Design Thinking?

Methods & Tools

The Typical Perception

Strategic Design Thinking

INTERVIEW   TIME TIMER   PROTOTYPE   PROCESS

Principles:

SPACE	DIVERSITY	EMPATHY	SYNTHESIS	ITERATION	PROTOTYPING	STORYTELLING	ANALOGY	SYSTEMS THINKING
STRATEGIC DESIGN THINKING PRINCIPLES	STRATEGIC DESIGN THINKING PRINCIPLES	STRATEGIC DESIGN THINKING PRINCIPLES	STRATEGIC DESIGN THINKING PRINCIPLES	STRATEGIC DESIGN THINKING PRINCIPLES	STRATEGIC DESIGN THINKING PRINCIPLES	STRATEGIC DESIGN THINKING PRINCIPLES	STRATEGIC DESIGN THINKING PRINCIPLES	STRATEGIC DESIGN THINKING PRINCIPLES
▸ Design space that defines (inter-)action	▸ Enable selforganisation of teams for high performance creativity	▸ Step into your user's shoes to get game-changing inspiration	▸ Make sense of data for a common stepping stone	▸ Fail early to learn together at high speed	▸ Accelerate decisions by making ideas tangible	▸ Involve the collective mind and heart	▸ Use the known to engage with the new	▸ Manage complexity by interrelated actions

Mindset: HUMAN CENTEREDNESS …   DIVERSE COLLABORATION…   LEARNING THROUGH EXPERIMENTATION…

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