



# Creativity workshop

ODeation

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# Agenda

*What are we going to do today?*

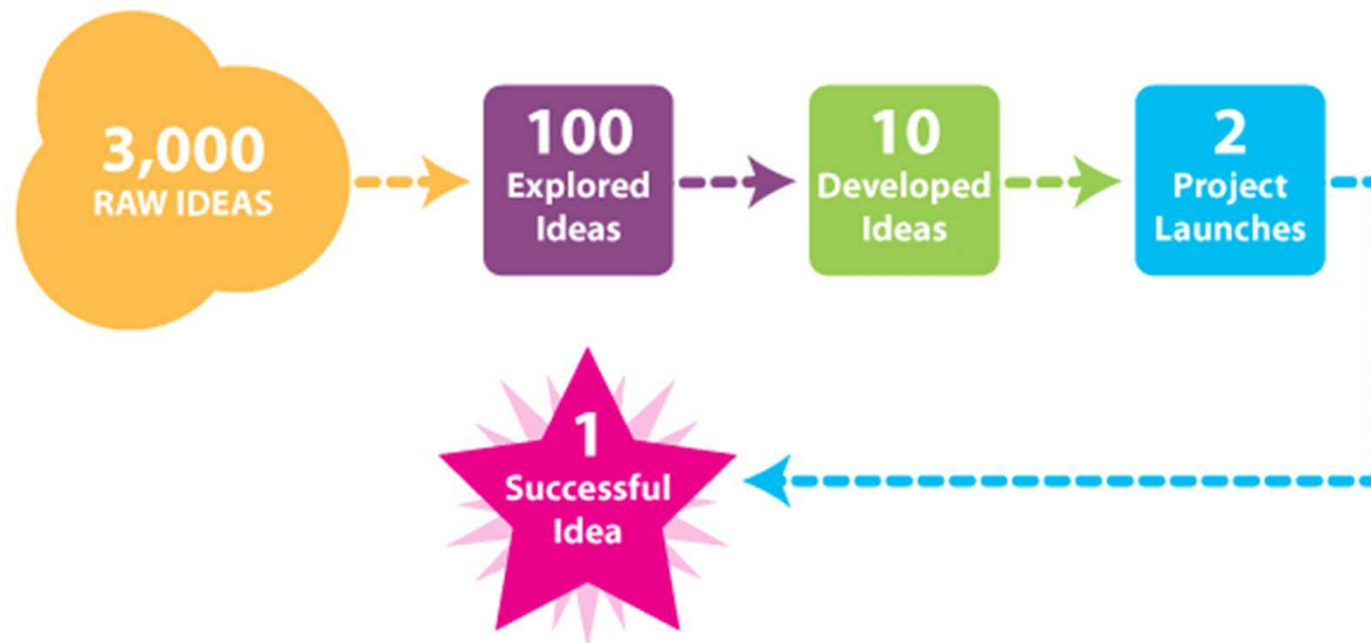
- **Intro-Game: Marshmallow Challenge** (15 min)
  
- **Input** (20 min)
  - Creativity
  - Tools & Techniques
- **Practical experience** (15 min)
  - Apply creativity tools
  
- **Input** (20 min)
  - Development of ideas: Business Model Canvas, Design Thinking
- **Practical experience** (15 min)
  - Apply development tools
  
- **Wrap-up** (5 min)

# Marshmallow Challenge

- Team up with four people
- 1 role of tape
- 1 Marshmallow
- 20 Spaghettis
- Who builds the tallest free standing structure?
- 10 minutes

# Creativity

*"The way to get good ideas is to get lots of ideas and throw the bad ones away."  
(Linus Pauling)*

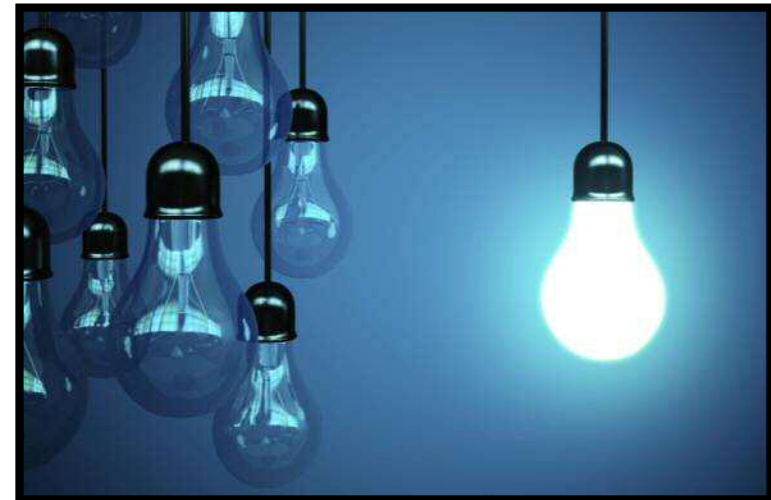


# Creativity

## Get lots of ideas



## Throw the bad ones away



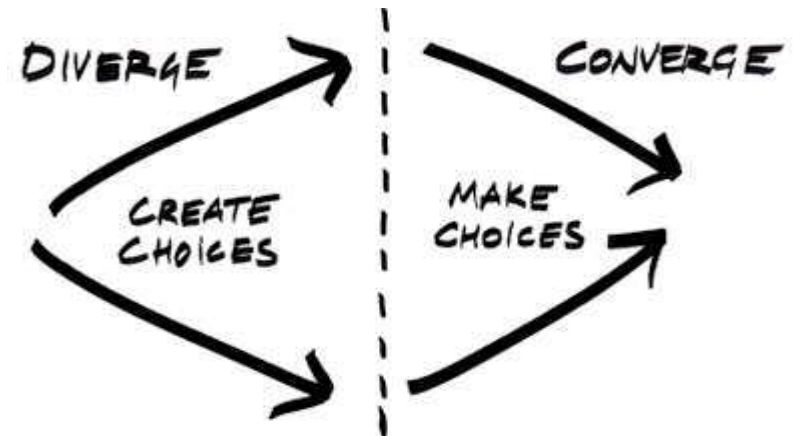
# Creativity tools

*Allow for structuring the process.*

## Temporary set of rules

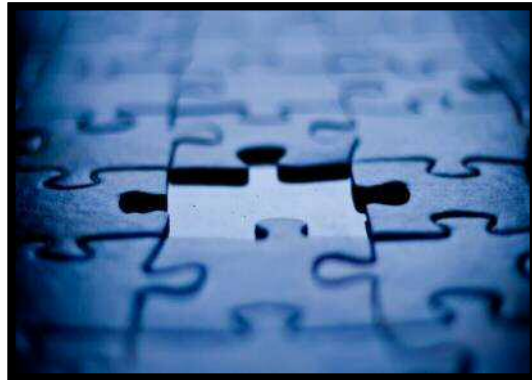


## Structuring cognitive processes



# Use of creativity tools

## Closed problems



## Open problems



# Use of creativity tools

## Individual vs. group

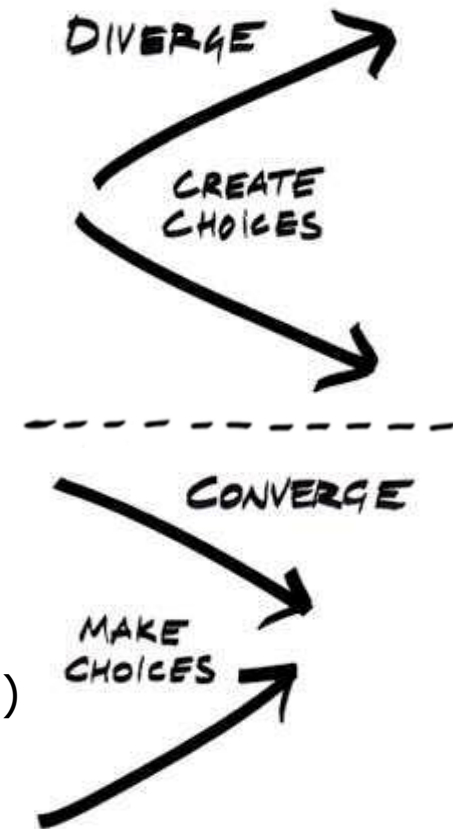




# Overview: Creativity techniques

*For open problems that allow for group collaboration*

- Divergent thinking
  - Brainstorming (e.g., Classic, Reverse)
  - Brainwriting (e.g., 6/3/5, Starbusting)
  - Metaphorical thinking
  - Morphological box
  - Idea box (mix-and-match)
- Convergent thinking
  - Hits
  - Discussion rounds (e.g., Six thinking hats)
  - Clustering
  - POINT (Positives, Opportunities, Issues, New Thinking)



# Rules for divergent thinking tools

- **Defer judgment** - Don't dismiss any ideas
- **Build on the ideas of others** - No “buts,” only “ands”
- Encourage **wild ideas** - they can be the key to solutions
- Go for **quantity** - Aim for as many new ideas as possible
- Be **visual, stay focused** on the topic, one conversation at a time



# Brainwriting: 6-3-5

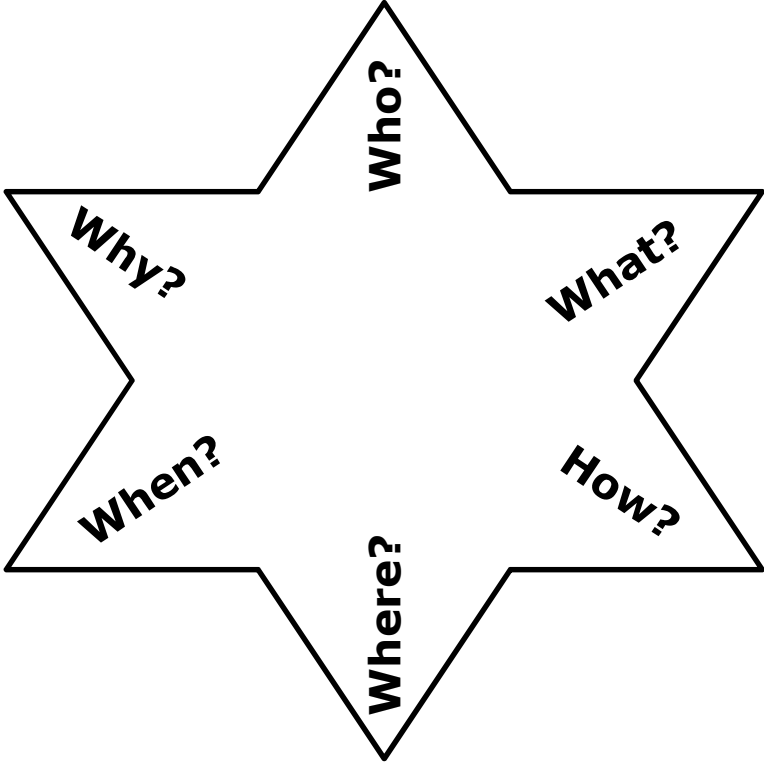
*6 Persons; 3 Ideas; 5 Minutes*

- Write three ideas in the first row
- Pass it on to your neighbor on the left after 5 minutes
- Build on existing ideas and add new ones in the next row
- Continue until all the boxes are full

	Idea 1	Idea 2	Idea 3
Person 1			
Person 2			
Person 3			
Person 4			
Person 5			
Person 6			

Example

# Brainwriting: Starbusting



# Morphologic box

- Step 1: Decompose problems into its dimensions
- Step 2: Define values for each dimension
- Step 3: Consider viable options by trying out

	Variant 1	Variant 2	Variant 3	Variant 4	Variant 5	
Example	<b>Number of table legs</b>	0	1	2	3	4
	<b>Material</b>	Glass	Plastic	Wood	Metal	Concrete
	<b>Height in cm</b>	0	50	70	110	variable
	<b>Form</b>	Quadratic	Round	Rectangular	Oval	Hexagonal

# Mix and Match

*Random combination of associations*

- Step 1: Write associations on notes
- Step 2: Put them randomly in two cups
- Step 3: Draw one sheet from each cup
- Step 4: Look at the combination and write down ideas



# Discussion rounds: Six thinking hats

- Step 1: Moderator plans phases of group discussion by assigning hats (e.g., 5' blue, 2' red, ...)
- Step 2: Moderator explains the function of the hats and starts the group discussion

## Rules:

- Participants should stick to the "hat"
- Moderator should be neutral and guide the process



# Clustering

- Pre-step: Write ideas on notes
- Step 1: Group like ideas together
- Step 2: Capture the essence of each cluster in one statement

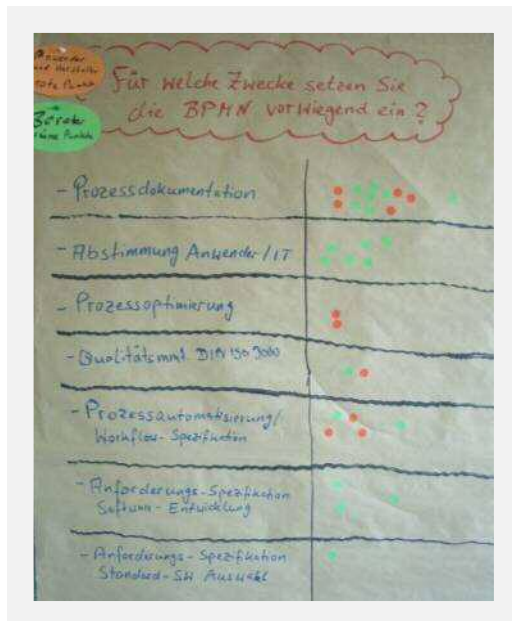


## Rules:

- Consensus within group is important
- Moderator should be neutral and guide the process



- Step 1: Write all options down
- Step 2: All participants vote for their preferred options



## Rules to be defined:

- How many points per person?
- Multiple voting ok?

# Practical experience

## Time to practice

- Choose one creativity tool
- Try the method by using an Open Data example
- 12 min time





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# Idea Development



„Ideas by them self are worthless“

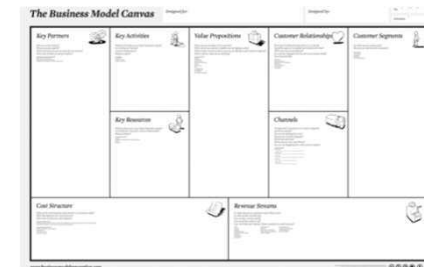


**What's next?**

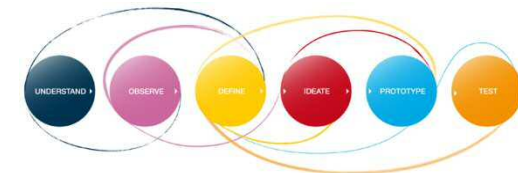


## Tools

### Business Model Canvas

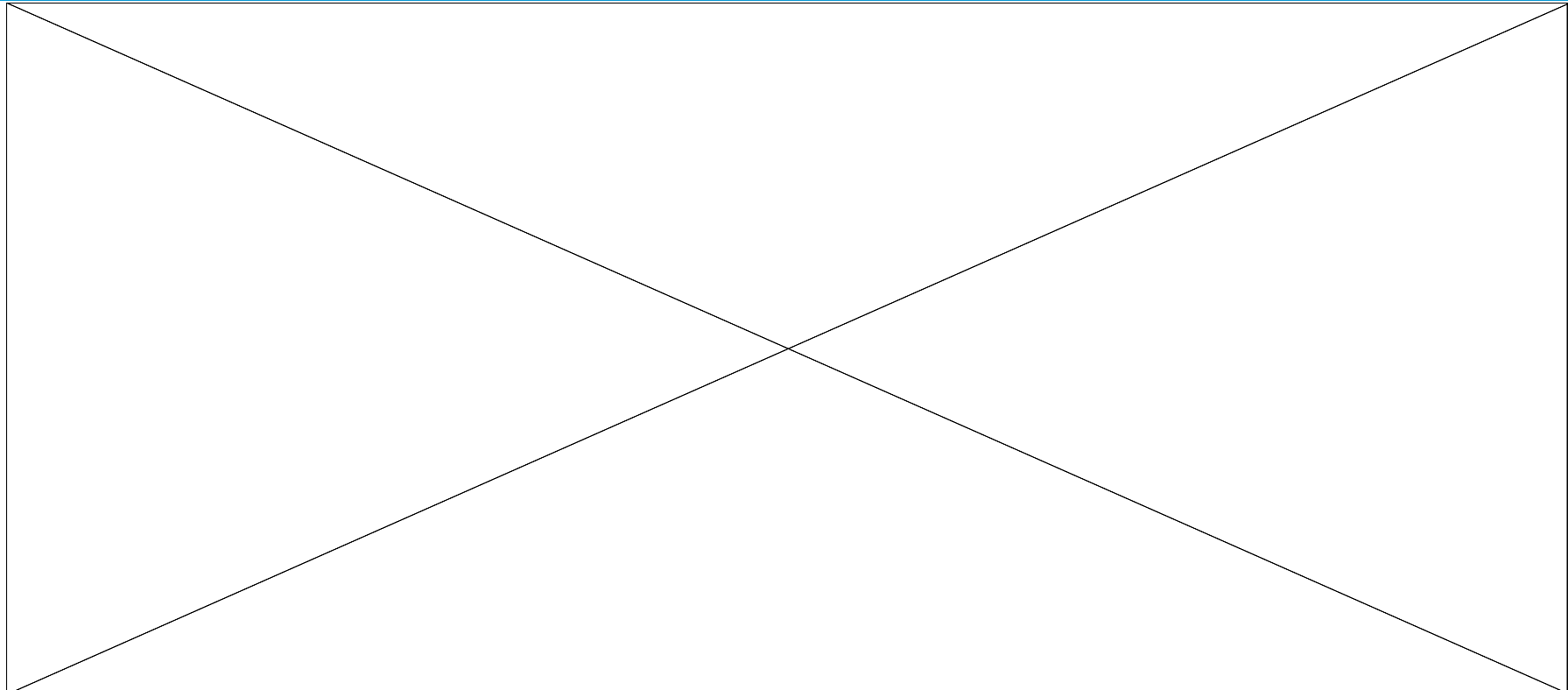


### Design Thinking



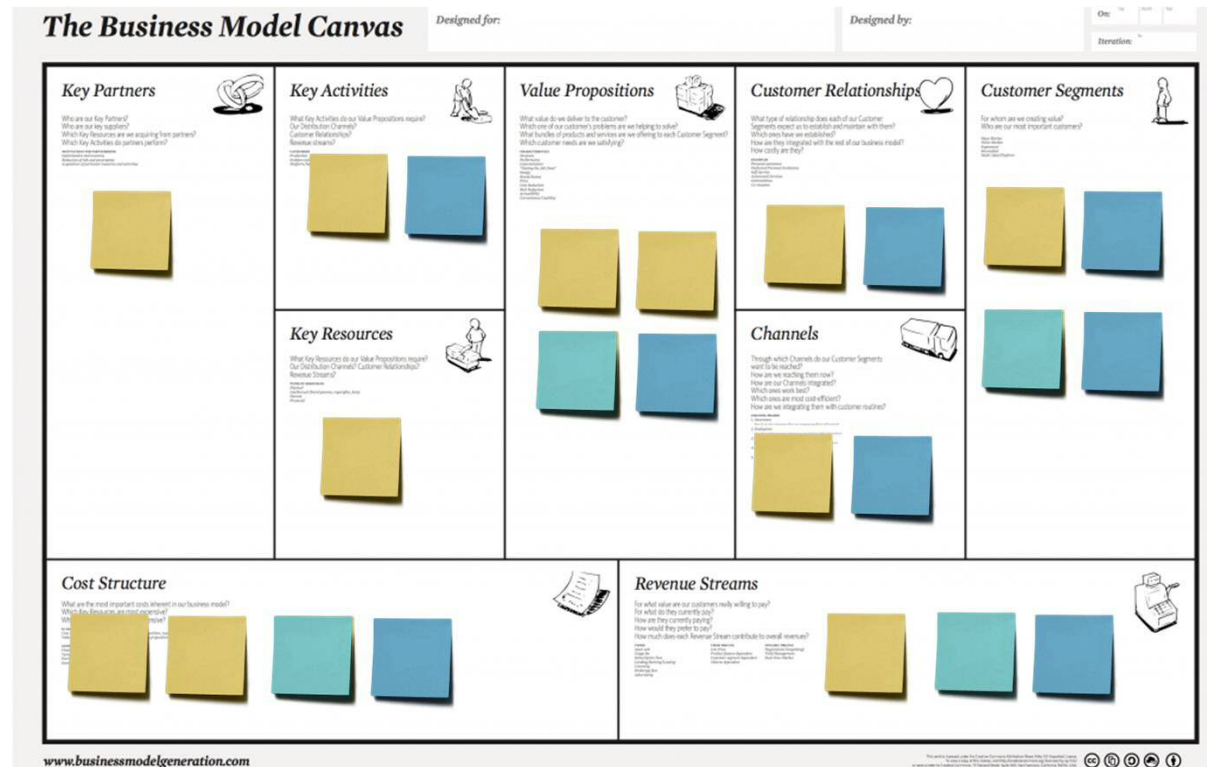
# Business Model Canvas

*The Business Model Canvas helps you to see the big picture*



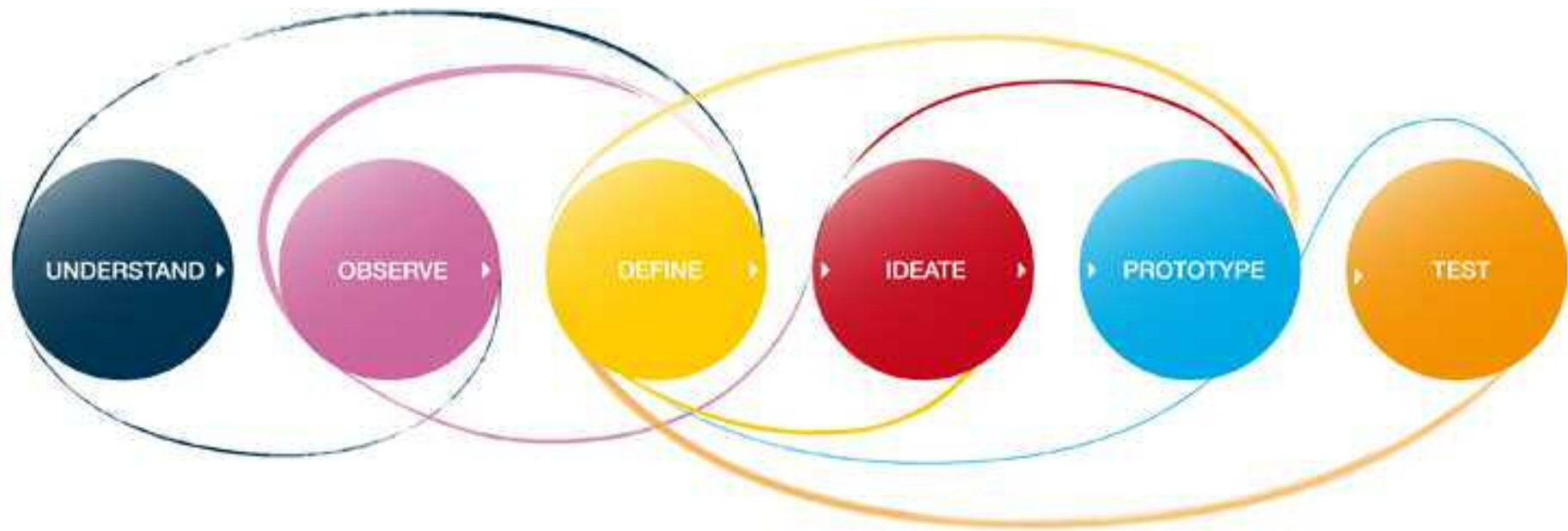
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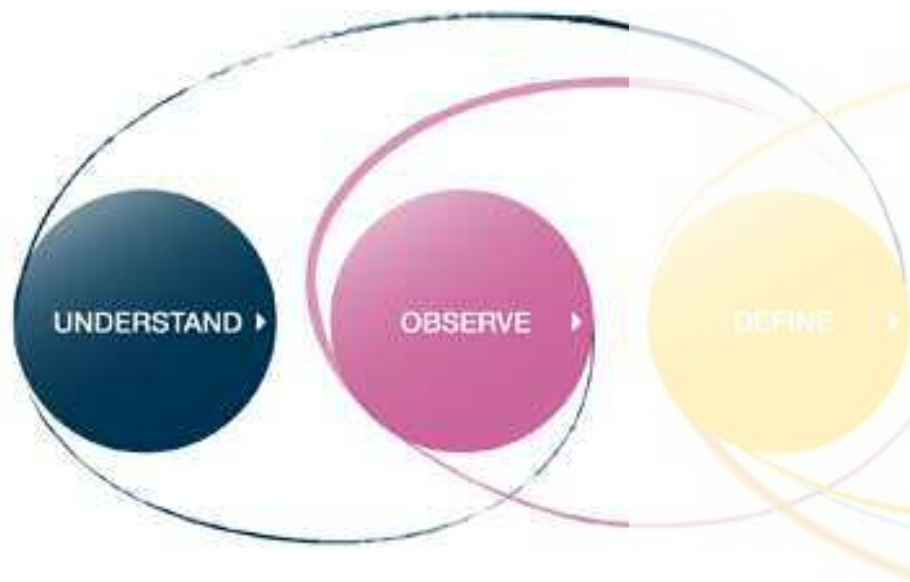
# Design Thinking

*Design Thinking is an empathy-driven process that combines divergent and convergent thinking*



# Design Thinking

*Design Thinking is a empathy-driven process that combines divergent and convergent thinking*



## Understand & Observe

- Understand **needs** and **emotions** of your target group
- Observe how the target group **behaves**
- Interviews, field observations, self-testing, secondary research
- Be **empathic** - Ask „**Why?**“



# Design Thinking

*Design Thinking is an empathy-driven process that combines divergent and convergent thinking*



## Define

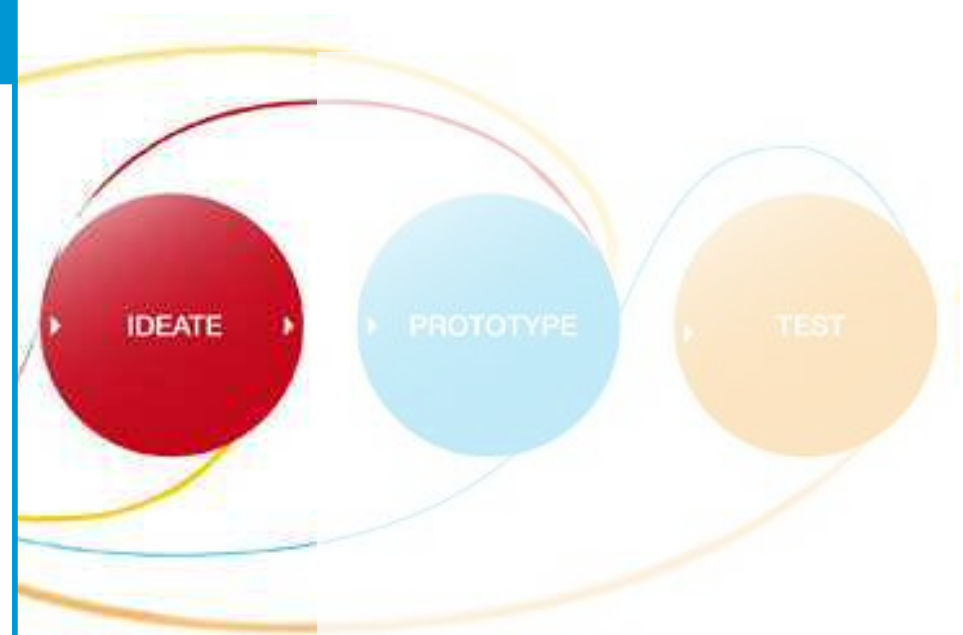
- Develop **key insights** based on what you have learned from empathizing with your target group
- Build **personas** of your target group / focus on individuals
- Craft a **point of view**

# Design Thinking

*Design Thinking is a empathy-driven process that combines divergent and convergent thinking*

## Ideate

- **Defer judgment** - Don't dismiss any ideas
- **Build on the ideas of others** - No "buts," only "ands"
- Encourage **wild ideas** - they can be the key to solutions
- Go for **quantity** - Aim for as many new ideas as possible
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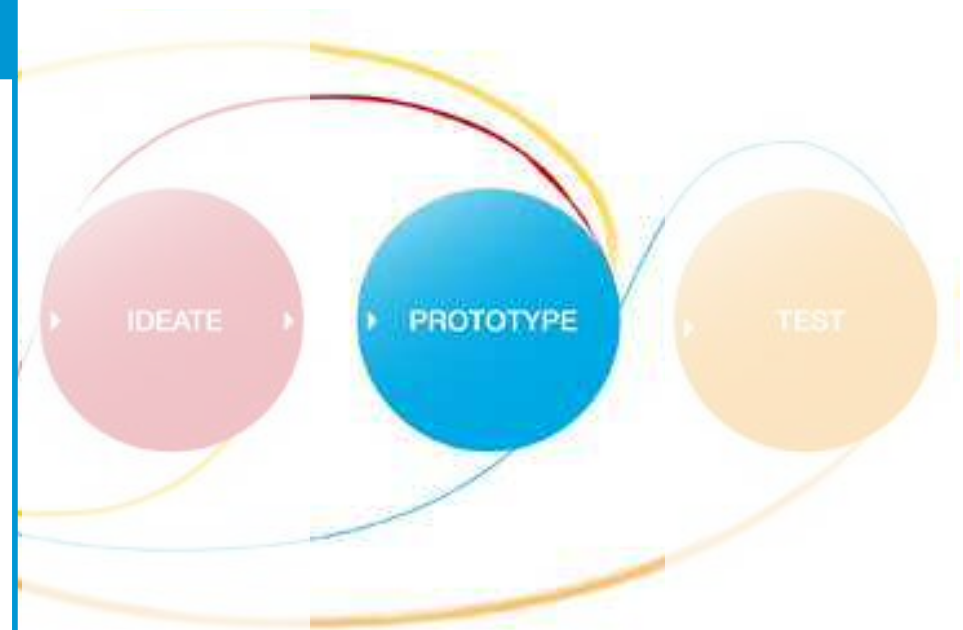


# Design Thinking

*Design Thinking is a empathy-driven process that combines divergent and convergent thinking*

## Prototype

- **Go fast:** quickly, economical, never waste time
- **No frills** demonstrate a design idea without too much details
- **Mock Up Everything:** storyboards, movies etc.
- **Create Scenarios:** various target groups
- **Bodystorm:** roleplay

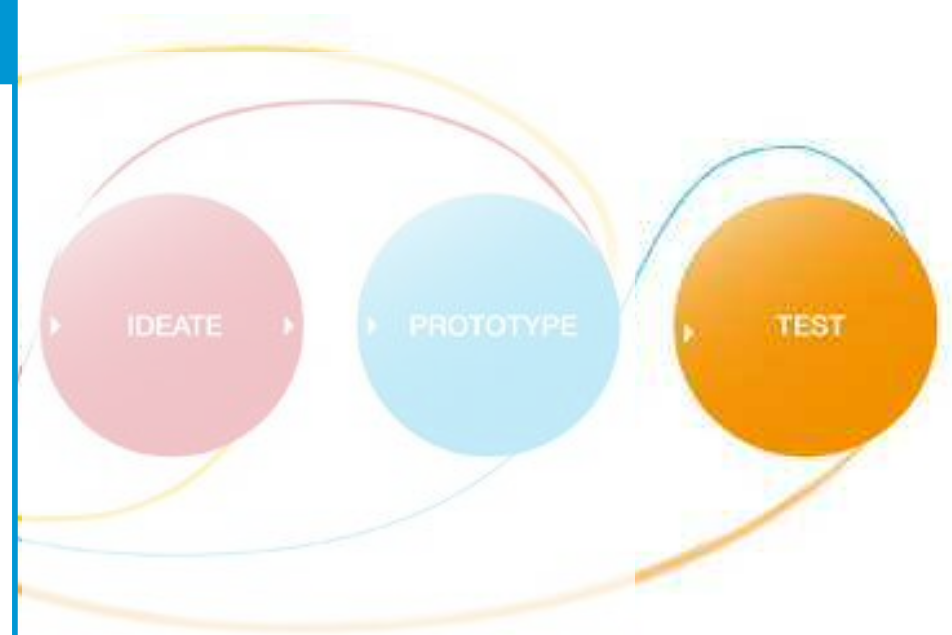


# Design Thinking

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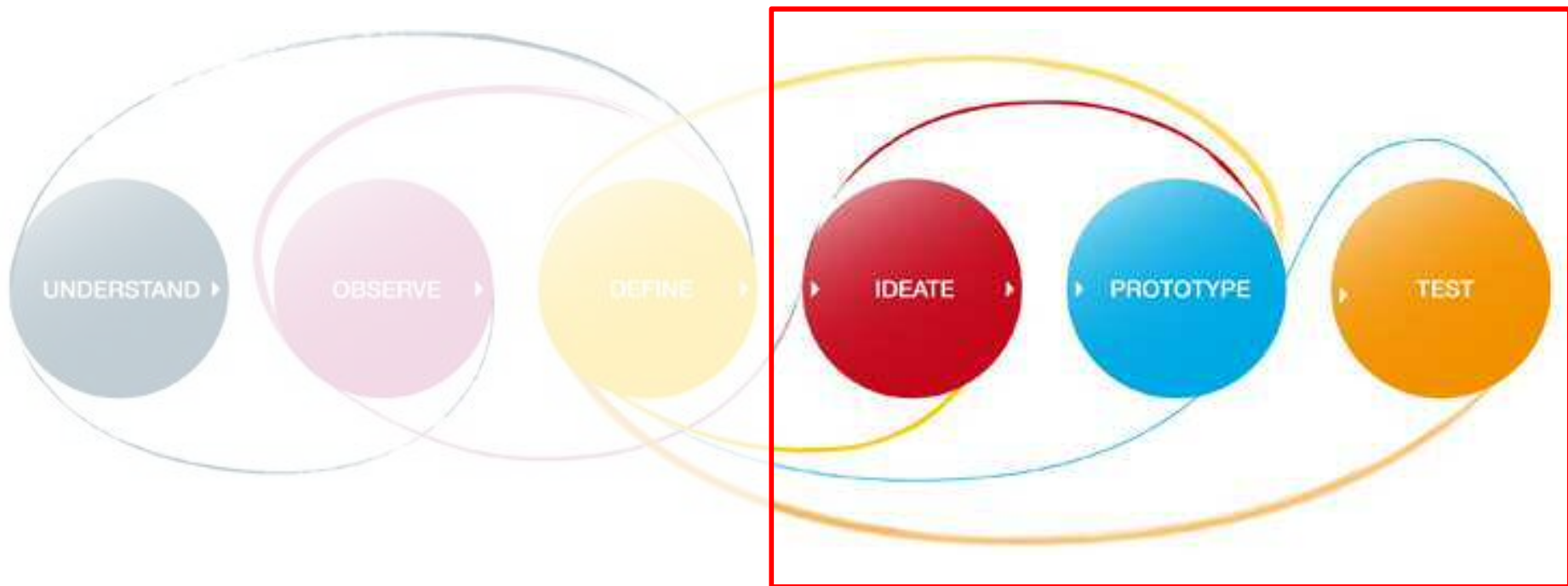
## Test

- **Show** not sell
- **Observe** what tester is doing
- **Encourage** feedback
- Ask **open** questions
- **Listen** to the tester, really!
- **Be grateful**



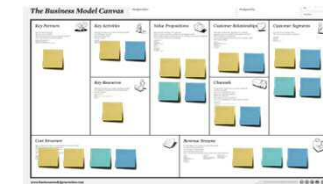
# Design Thinking

*How could you apply Design Thinking here?*



# Comparison

*Different methods have different foci*



<p>When to use?</p>	<ul style="list-style-type: none"> <li>▪ To solve complex problems</li> <li>▪ To develop products based on customer needs</li> </ul>	<ul style="list-style-type: none"> <li>▪ To analyze an idea systematically</li> <li>▪ To understand dependencies</li> </ul>
<p>How to use?</p>	<ul style="list-style-type: none"> <li>▪ Try to build interdisciplinary team</li> <li>▪ Be aware of the phase you are in</li> </ul>	<ul style="list-style-type: none"> <li>▪ Use sticky notes to be flexible</li> <li>▪ Try to tell the story of your business model</li> </ul>

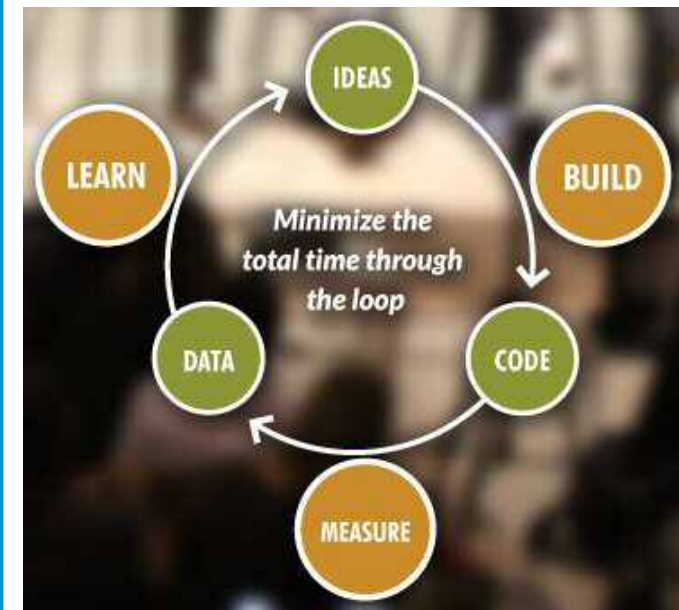
# Similarities

*Different methods use different names but share common principles*

## Common principles

- **Rapid prototyping:**  
Build your idea only as detailed as necessary to test hypotheses
- **Hypotheses testing:**  
Develop and test hypotheses to draw conclusions
- **Learn from feedback:**  
Get feedback from outside early in order to be adaptive

## Lean Start-up



## Let's try it!

- Develop your idea with a prototype or the BMC (10 min.)
- Team up (two people)
- Pitch your results to your teammate (1 min. each)
- Give feedback on your teammate's idea (1 min. each)
- Think about improvements (1 min.)



## What was it like?