Design thinking workshop
February 25, 2021

ICT-INOV
MODERNIZING ICT EDUCATION FOR
HARVESTING INNOVATION

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Purpose

- ▸ To understand the basic concepts of design thinking

- ▸ To deploy design thinking in a quick workshop

- ▸ To understand some of the practical tools used in design thinking

Design thinking

- ▸ Design human centred solutions

- ▸ Goes beyond classic "user-centered" design

- ▸ Tries to understand actual needs, the experience of the user, feelings
- ▸ To define accurately the problem
- ▸ Which allows the introduction of a solution even in "wicked" problems
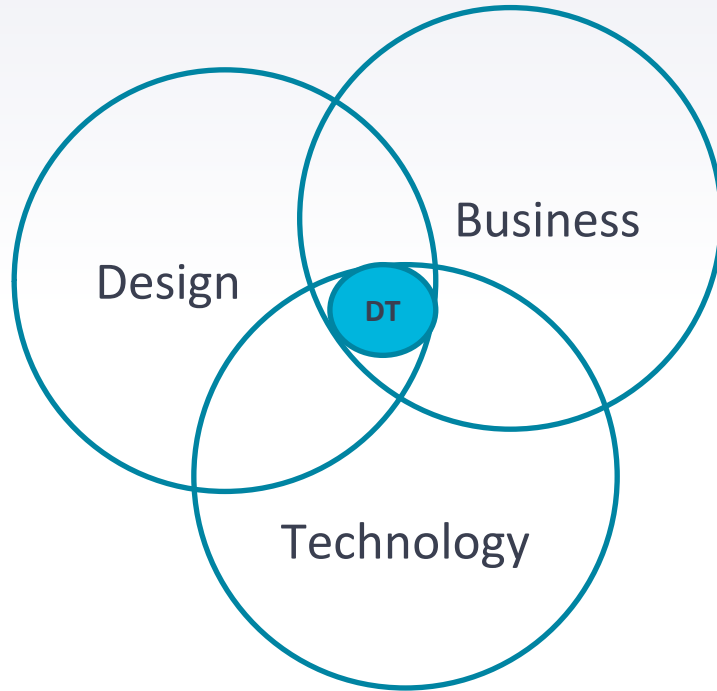
Inspiration

d.
HASSO PLATTNER
Institute of Design at Stanford
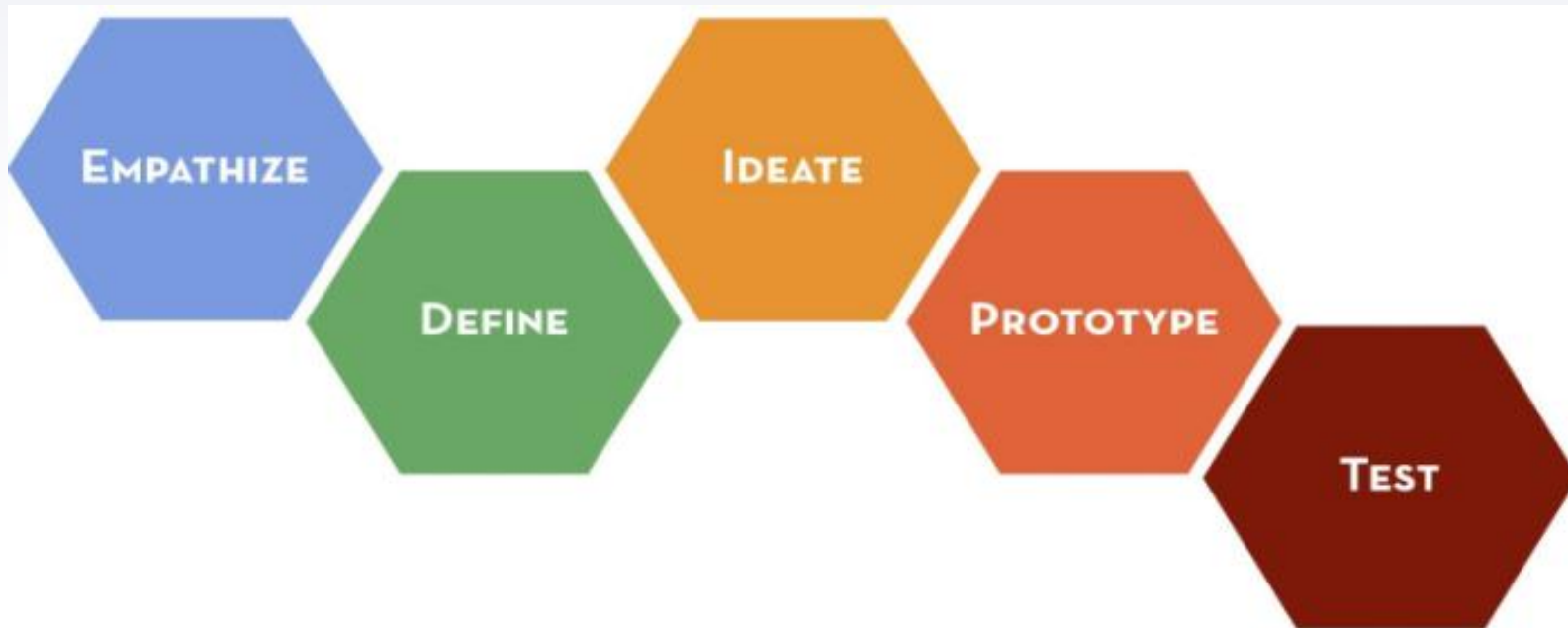
IDEO

David Kelley
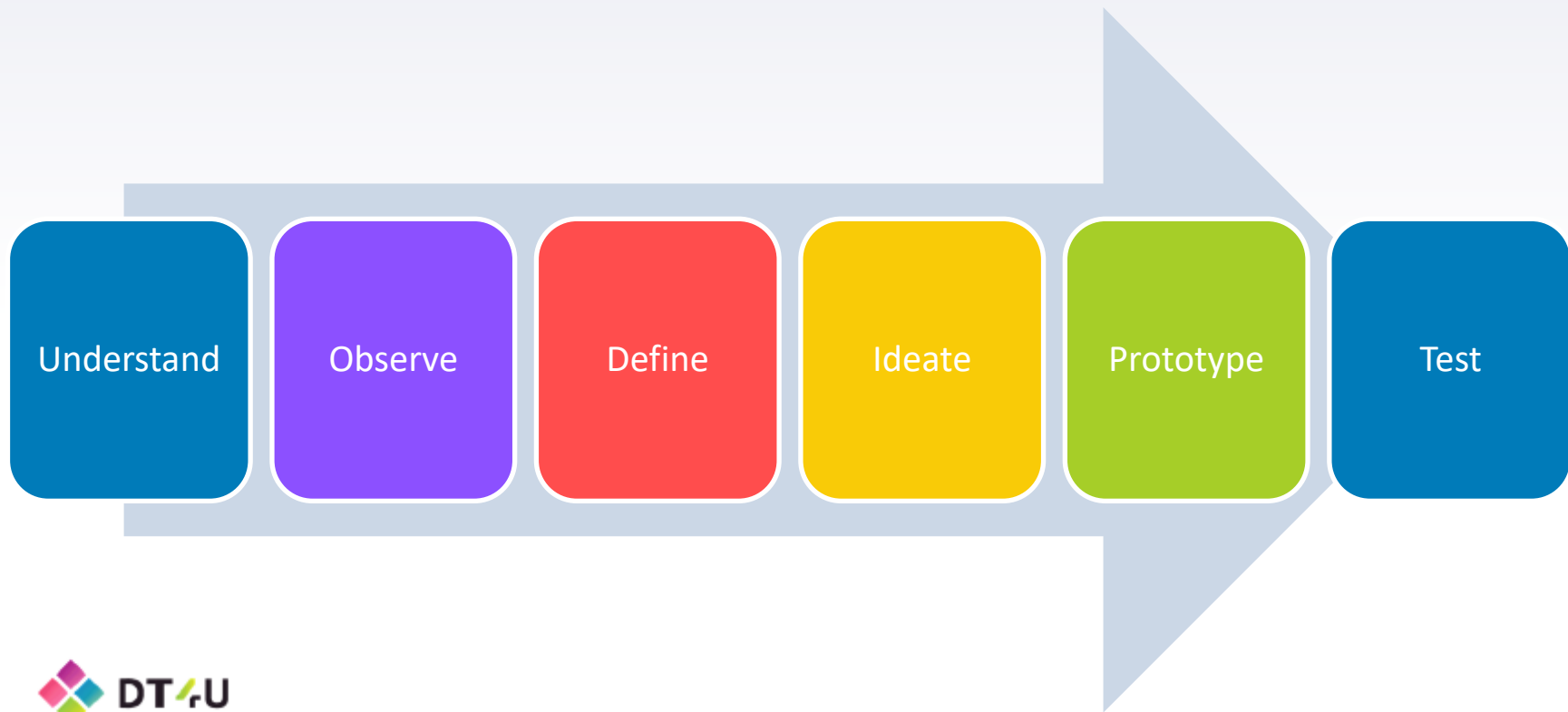
Design thinking

What is feasible.

The intersection of design, business, and technology.

Design thinking model

IDEO

Design thinking model

The project

How to redesign the disposal of waste

Teams

Team A

Moderator: Hariklia

Hazleen, Michela, Irum, Carlos

Room:

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Team B

Moderator: Christina

Raja, Triinu, Nguyet, Tri, Kamran

Room:

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Team C

Moderator: Costas, Sotiris

Dhiraj, Manish, Huy, Alden

Room:

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0. Warm-up

Activity 0.1

- ▸ You have at your disposal

- ▸ Draw something that answers the need of somebody
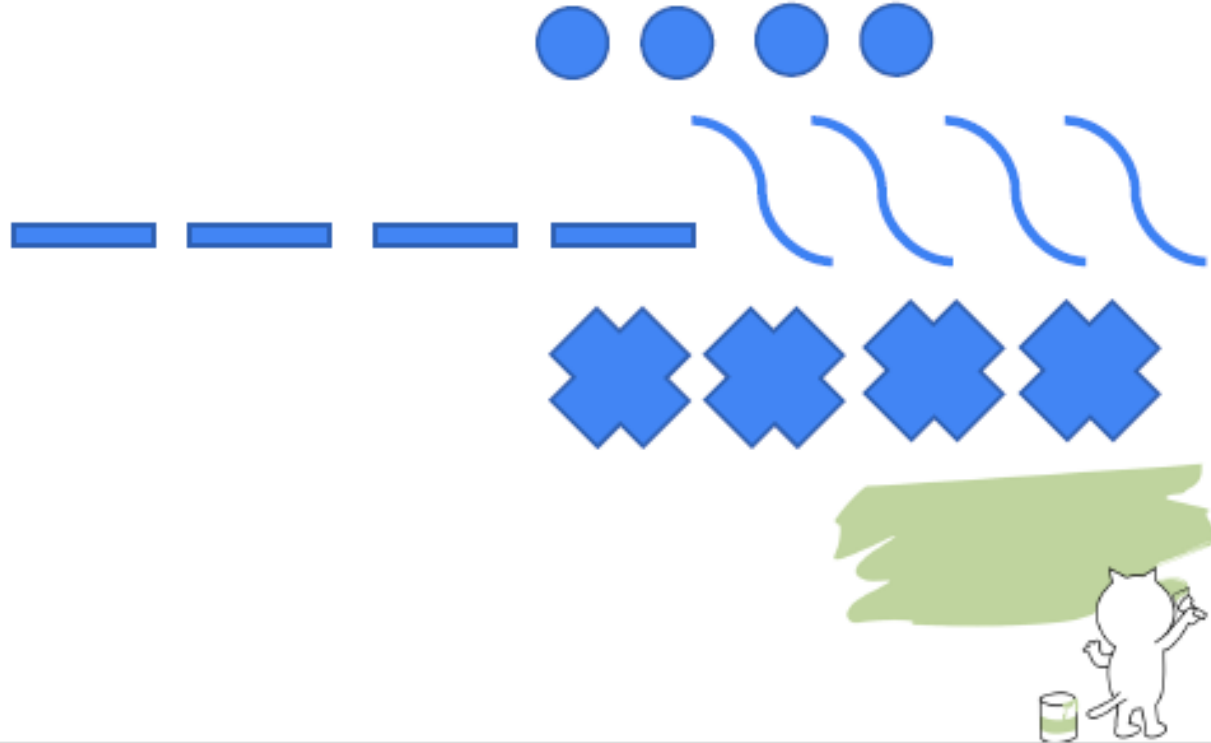
Activity 0.2

| Has read 3 English novels	Has eaten pizza prosciutto 3 times	Has been to Germany	Has visited at least 3 other countries	Has developed a game
Has been to the USA	Has seen 3 James Bond movies	Has been to Paris	Favourite colour is blue	Has read Harry Potter
Speaks 3 or more languages	Has a parent from another country	Has siblings	Can play a musical instrument	Loves sailing
Wears sneakers rather than leather shoes	Likes to vacation at the sea	Loves hiking and the mountains	Has held a job	Has joined the boy/girl scouts
Has some design thinking experience	Would like to start a company	Has developed an Android app	Has seen all Star Wars movies	Would like to work in a start-up

Understand
1. Associations

Activity 1: Understand Associations

▸ Write down 5 ideas that come to mind in relation to <u>throwing away waste</u>
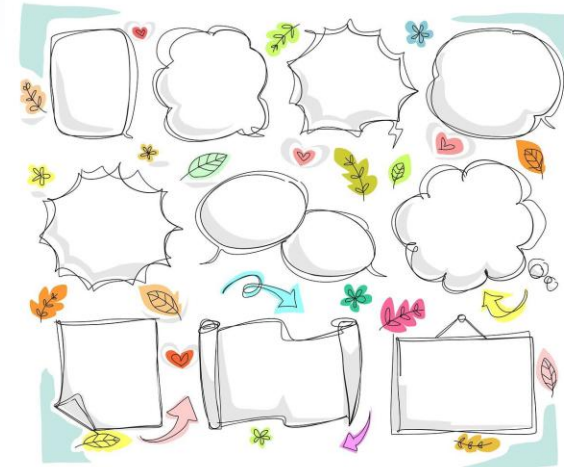
Activity 1: Understand Associations

▸ Write down 3 more associations related throwing away waste and <u>people</u>
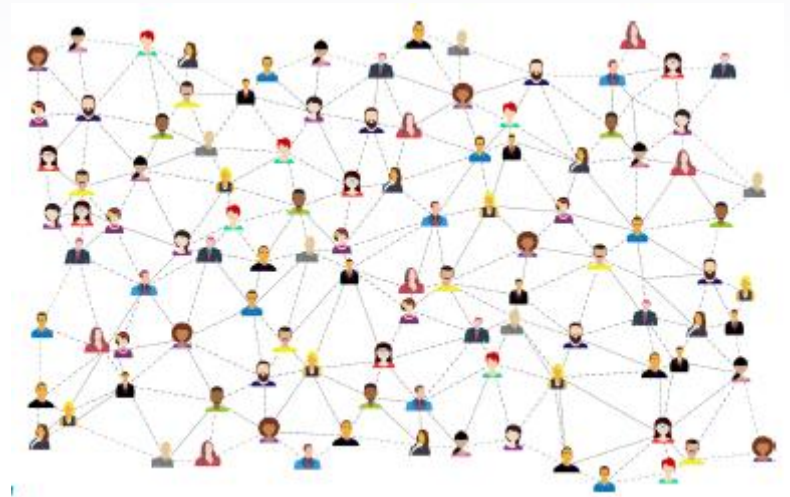
Activity 1: Understand Associations

▸ Write down 3 more associations related throwing away waste and <u>places</u>

Activity 1: Understand Associations

▸ Write down 3 more associations related throwing away waste and <u>feelings</u>

Activity 1: Understand Associations

▸ Write down 3 more <u>actions</u> related throwing away waste

Understand
2. Empathy

Activity 2. Empathy

- ▶ Look for problems

- ▶ Which areas in a process are problematic?

1 Problema tic areas

2 Areas of possible change

3 Things to improve

Activity 2. Empathic research

- Select **1 problematic area**

- Perform short research

- Try to answer the following questions:

  - **Find 3 pictures demonstrating the problem**

  - Find an article on the problem

  - Find a short video on the problem

  - **Present the problem and the proof to the group**
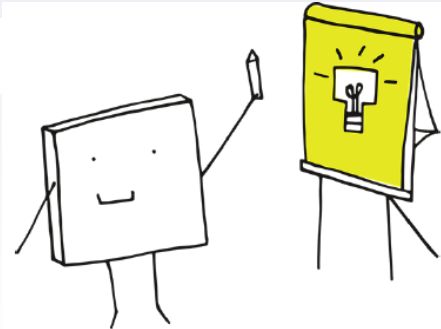
Observe
3. Interviews

Activity 3. Interviews

- Prepare a list of questions to ask potential users

- Think about:

  - Who you will ask

  - Where the interview will take place

  - What will be the interview questions

  - Conduct at least 5 interviews

  - Each interview should be about 30 minutes

Activity 3. Interviews

- Tips
  - Plan the location
  - Think about who will give the most valuable information
  - Need 3 team members: to interview, observe, take pictures
  - Come to the interview with predefined questions, but don't focus on the order
  - Remember that you cannot predict how the interview will evolve, be prepared to adapt

Activity 3: Observe Interview cards

Interview preparation

WHO?
(Why that group?)

WHERE? (Interview surrounding)
(Why there?)

QUESTIONS

1.
2.
3.
4.
5.
6.
...
...

Tips

1. Plan the location where you conduct interview!
2. Plan who can give you the most valuable information.
3. 3 team members are needed: one who conducts interview, one who takes notes, one who observes the interviewee/take pictures.
4. Come to interview with pre-defined questions, but don't focus of their order.
5. Remember that you can't predict the whole course of the interviews, be prepared but open to.

Activity 3: Observe Interview cards

Interview card

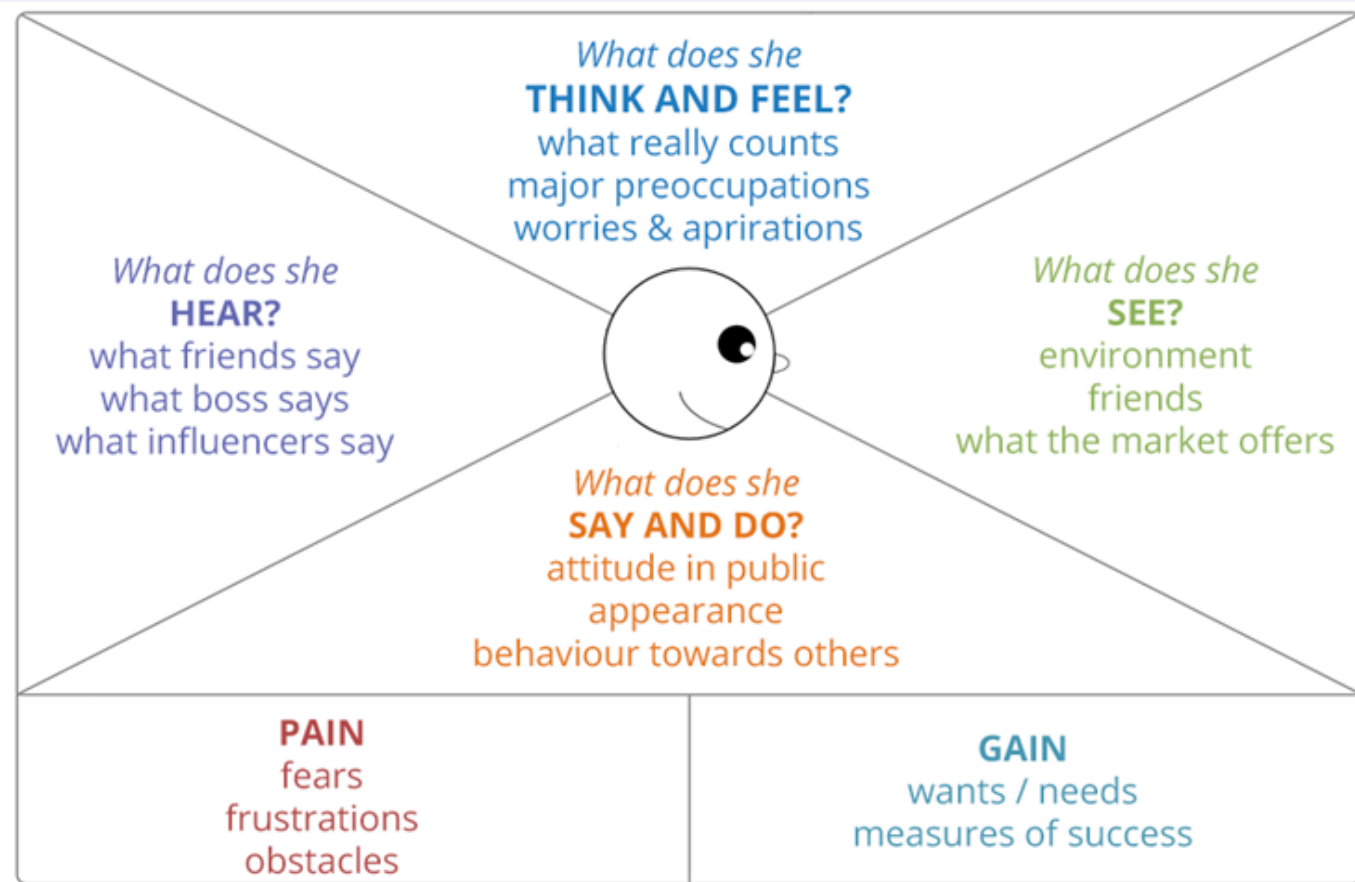| Picture / Photo | Name:
Sex:
Age:
Occupation: | **Tips**
1. Note everything!
2. Ask questions WHY?
3. Be curious as a child!
4. Observe your interlocutor! |

WHERE? (interview surrounding)

Notes

Activity 3. Interviews

▸ Make an empathy map

▸ Share with your team all findings gathered in the interviews

Collect data > Share > Analyze

Activity 3. Interviews

What does she
THINK AND FEEL?
what really counts
major preoccupations
worries & aprirations

What does she
HEAR?
what friends say
what boss says
what influencers say

What does she
SEE?
environment
friends
what the market offers

What does she
SAY AND DO?
attitude in public
appearance
behaviour towards others

PAIN
fears
frustrations
obstacles

GAIN
wants / needs
measures of success

Define
4. Point of view

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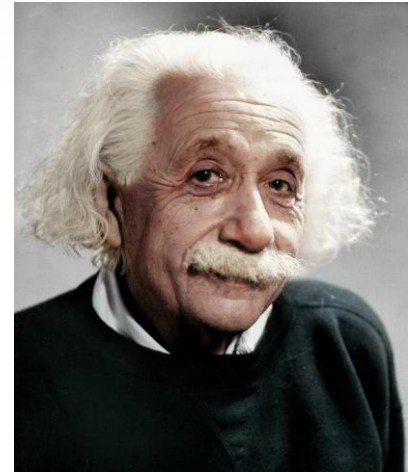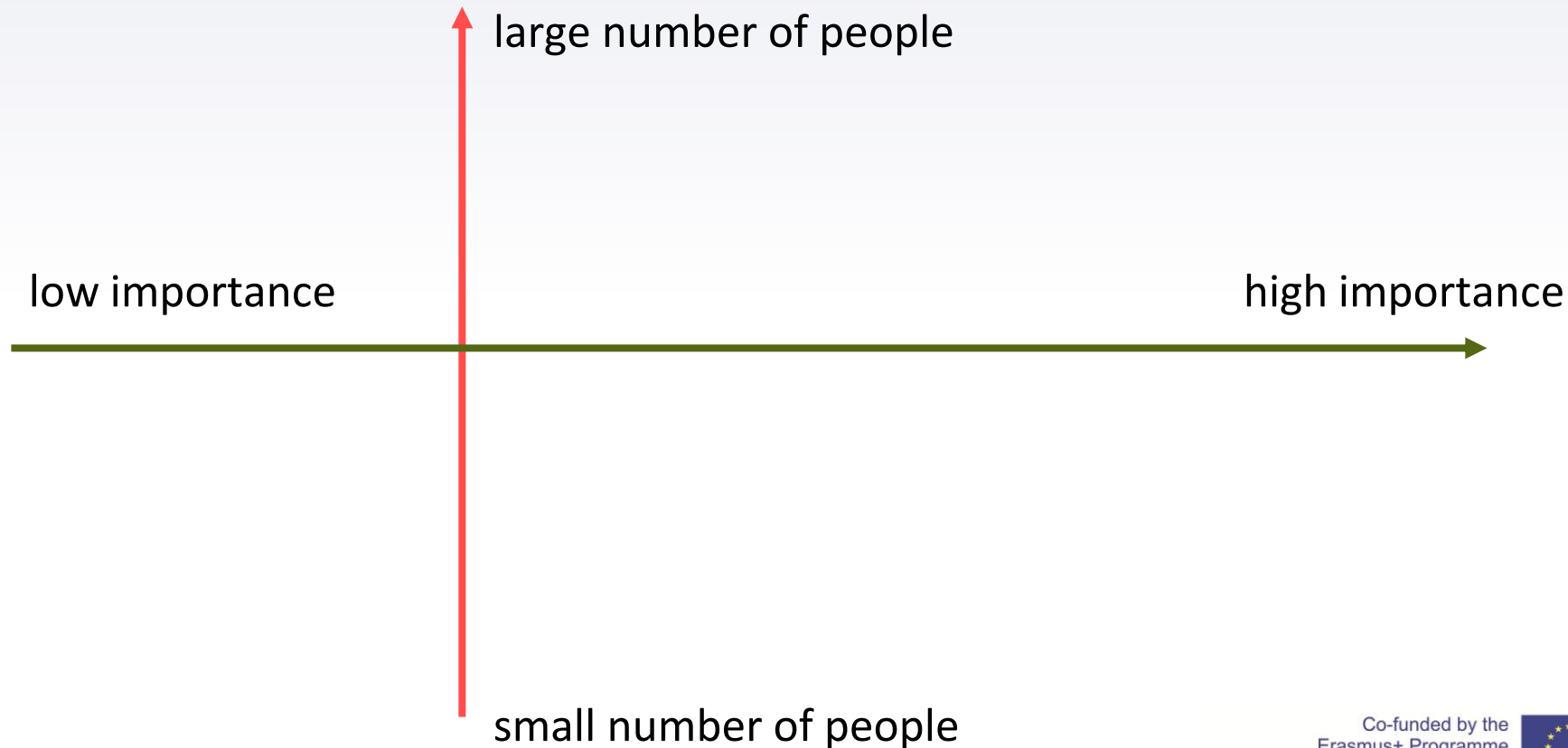
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What is the problem?

▸ What is the actual need?

▸ "If I had an hour to **solve a problem I'd spend 55 minutes thinking about the problem and 5minutes thinking about solutions.**"
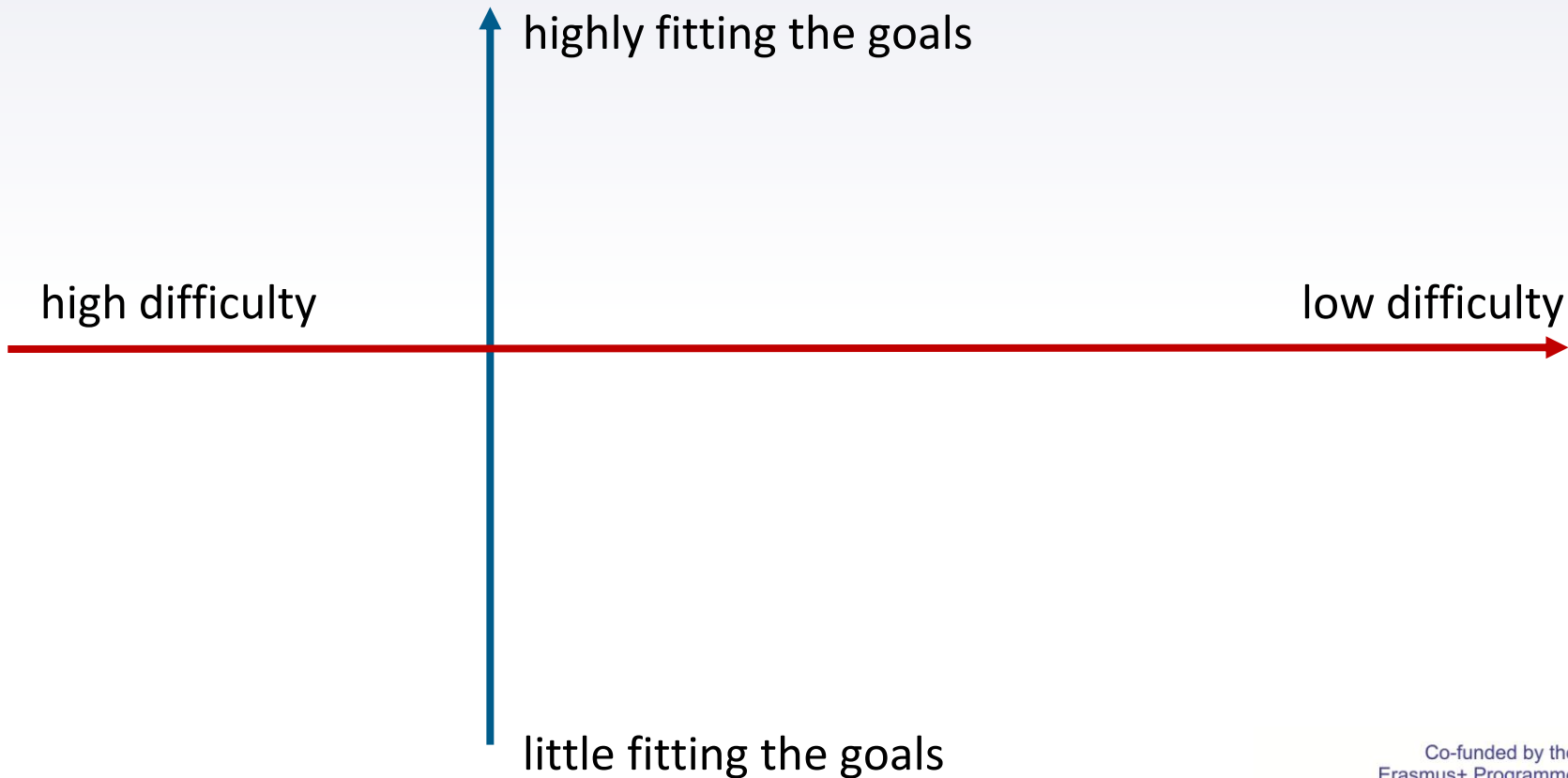
Albert
Einstein

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Mapping the problem

large number of people

low importance   high importance

small number of people

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3

Mapping the problem

highly fitting the goals

high difficulty

low difficulty

little fitting the goals
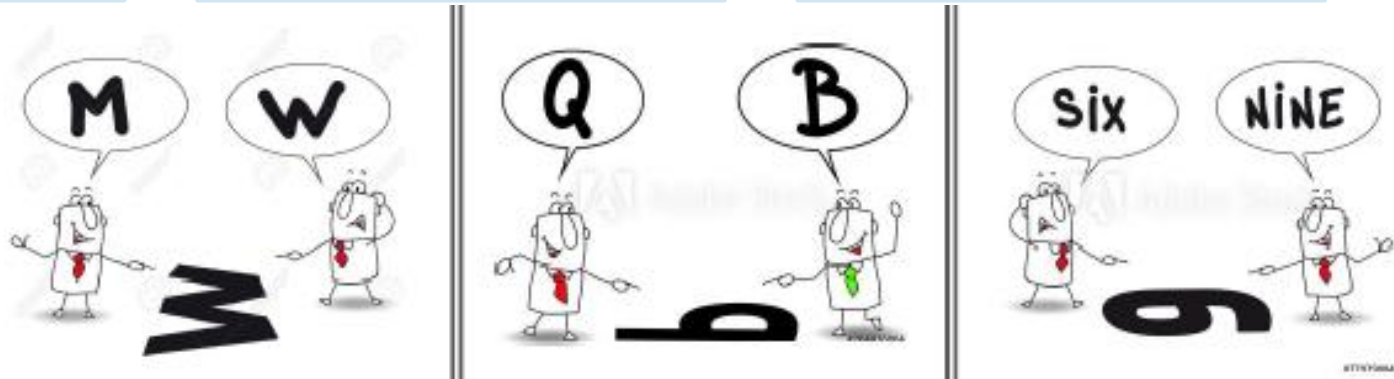
Activity 4. Point of view

Who	What	Why
• The user	• … needs a way to … (use verbs)	• … because … (insight)

Activity 4. Point of view

- **How might we** … find a way to … allow the user to …

- **What are the ways we could** …

- **What kind of scenarios could we imagine**?

How might we ACTION WHAT for WHOM in order to CHANGE SOMETHING

Ideate
5. Ideation

Ideation rules

- ▸ From quantity to quality

- ▸ We are the team

- ▸ One conversation at a time

- ▸ Never criticize the ideas of others

- ▸ There are no stupid ideas!

- ▸ Build on the ideas of others

- ▸ Encourage wild ideas

- ▸ Constructive feedback

Activity 5. Ideate

- **Part 1:**

- Avalanche

- One idea starting with each letter of the alphabet

Activity 5. Ideate

- **Part 2:**

- Think of something that is uncomfortable for someone

Activity 5. Ideate

- **Part 3:**

- Think about ideas the implementation of which costs at least 1m Euros

Activity 5. Ideate

- **Part 4:**

- If you could solve it with magic, what would you do?

Prototype
6. Selecting an idea

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How to select an idea

- Make a short list of the ideas produced in ideation

- Select
    - The most innovative
    - The craziest
    - The most straightforward

- Select an idea that can be prototyped
- Users will experience the solution and provide feedback