University of Victoria | Computer Science

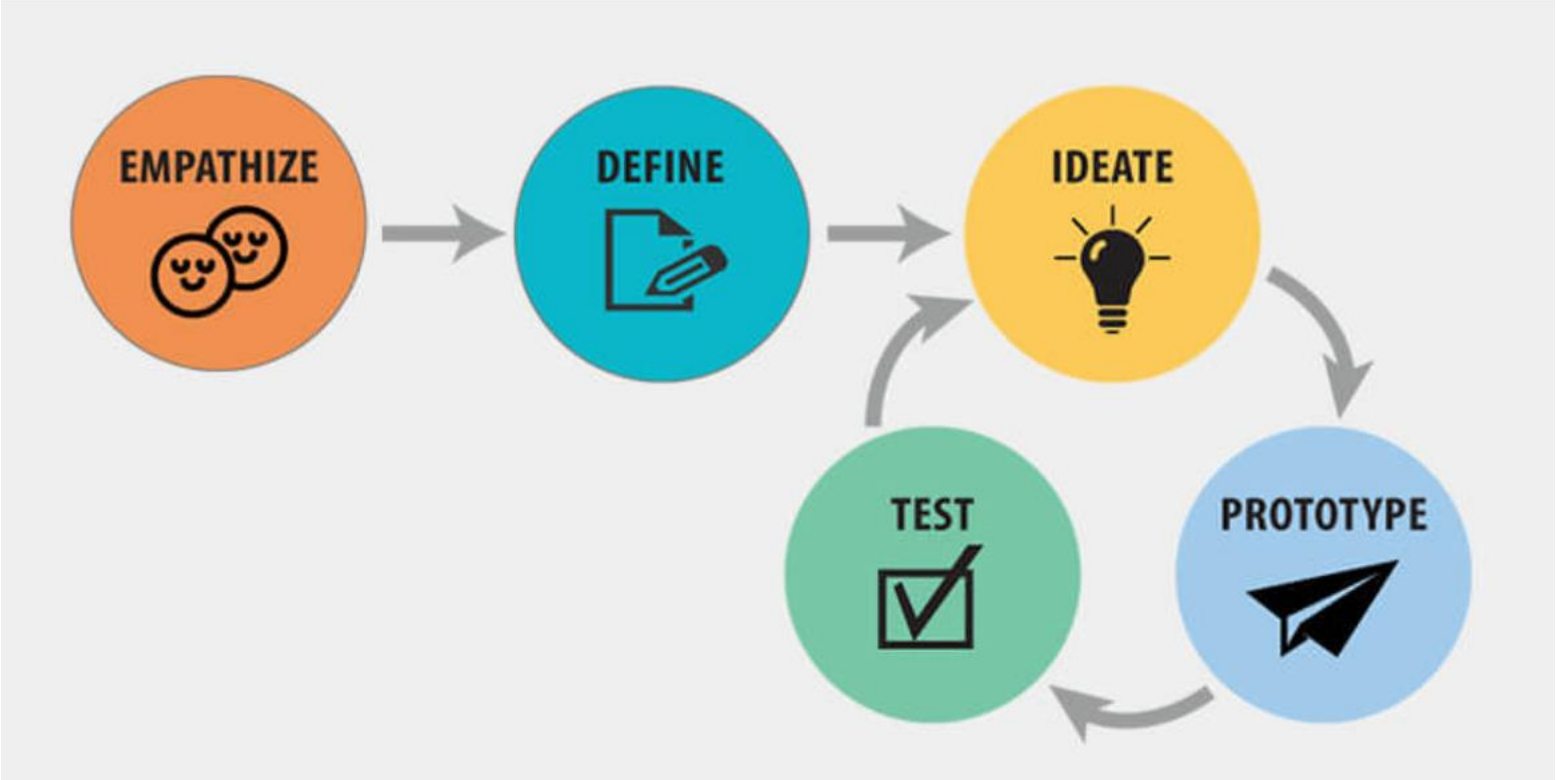
HighTechU

Empowering Future Innovators

Design Thinking

What is Design Thinking (DT) ?

- It’s a solution-based approach to finding what would-be users *really* need
- A mindset and a methodology for generating creative solutions
- Certain characteristics of DT make it effective in almost any field – from business innovation to product design to learning design
- The approach to DT consists of five phases


EMPATHIZE
DEFINE
IDEATE
PROTOTYPE
TEST

Empathize

- This stage demands gaining an empathic understanding of the problem you're trying to solve
- Be non-judgemental - set aside your own assumptions about the world in order to gain insight into users and their needs
- Seek to understand
- "Becoming" them

Define

- Put together the information you have created and gathered during the Empathize stage
- Define the **core** problem/s you and your team have identified so far
- Define your “PROBLEM STATEMENT”

Ideate

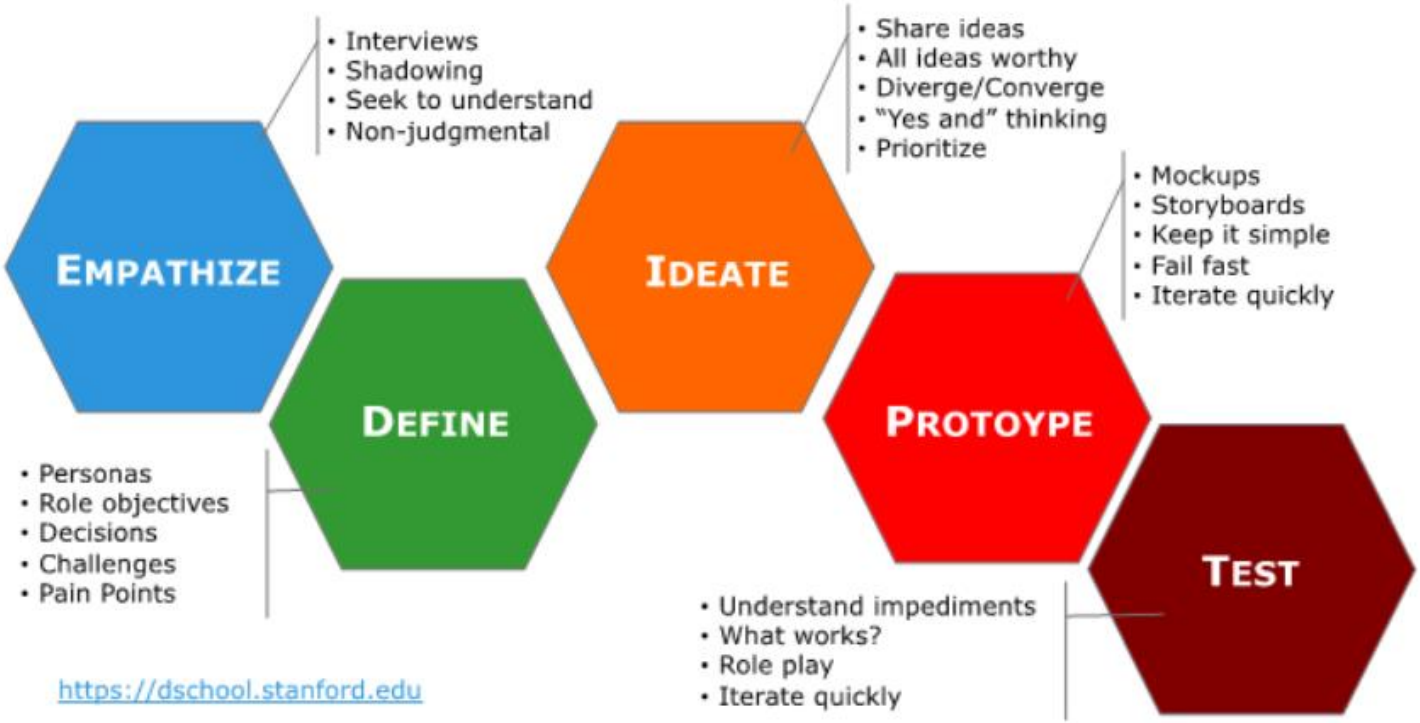
- This stage finds you ready to start generating ideas
- With the knowledge you have gathered in the first two phases, you can start identify new solutions to the problem statement you've created
- You can start to look for alternative ways of viewing the problem

Prototype

The team produces a number of inexpensive, scaled-down versions of the product or specific features found within the product so you can investigate the problem solutions generated in the previous stage

Test

- Rigorously test the completed product using the best solutions identified during the prototyping phase
- This is the final stage; however, in an iterative process, the results generated during the testing phase are what you will often use to redefine one or more problems


EMPATHIZE
• Interviews
• Shadowing
• Seek to understand
• Non-judgmental
DEFINE
• Personas
• Role objectives
• Decisions
• Challenges
• Pain Points
IDEATE
• Share ideas
• All ideas worthy
• Diverge/Converge
• "Yes and" thinking
• Prioritize
PROTOYPE
• Mockups
• Storyboards
• Keep it simple
• Fail fast
• Iterate quickly
TEST
• Understand impediments
• What works?
• Role play
• Iterate quickly
https://dschool.stanford.edu

Define a Problem to Work On

How does this work ?

- Each member from the team comes up with a problem that he/she thinks is important to solve. Preferably, write that down on a sheet of paper
- Each member explains the problem to the team for two minutes
- The rest of the team member then try to discuss that problem for five minutes
- Repeat the activity for all team members

Decide on a common “PROBLEM STATEMENT”