



Design Thinking

Problem-space

Solution-space

Empathise

Define

Ideation

Prototype

Test

Interviews

Observations

Immersion

Clustering

Insight formulation

Framing / Re-framing

Brainstorming

Paper Prototyping / Wizard-of-Oz Prototyping

User-centered testing

Gain empathy

Collect field data / Need-finding

Become an expert

Gain Insight

Understand opportunities

Construct problem statement

Idea Generation

Modeling

Gain user feedback

- User data
- Stakeholder data

- Personal experiences / issues
- Solutions built by users themselves

- Persona profiling
- Role-relationship-experience mapping

- Visual frameworks

- Opportunity areas
- Priority Matrix

- Questions
- Problem focus

- Ideas / Idea Concepts

- Non-technical prototypes
- Realistic & readable content
- Visual & emotional content
- Digital interface

- Low resolution artefacts
- Business models
- Pilot product rollout
- Scaled solution model

diary study, guided tour, contextual inquiry, fly-on-the-wall observation, encouraging stories, understanding body language & emotions

post-its, digital, words, poster presentation, pictures, playing cards, games, artificial money

speech bubble, persona portraits, capture journeys - flowchart, user camera study, What? How? Why?, capture details, notes

Grouping-subgrouping, voting, polling venn-diagrams, matrices

concept mapping, affinity clustering, primary-secondary-tertiary mapping, importance matrix, difficulty matrix

problem-tree [cause (root) and effect (branches) relationship], phrase starters (How might we..? How to..?), positive, negative, potential

idea sketches, round robin (passing ideas), poeple vs. solution matrix, failure vs. solution matrix, alternative worlds / perspectives

paper, lego, clickable mockups, storyboard, video prototyping, role playing

testing prototypes, feedback capture grid, surveys, like-wish-what if

Phases

Methods

Goals

WHAT

Artefacts

HOW