

# **Practical Design Thinking Workbook**

**Your Step-by-Step Guide to Creative Problem Solving**

# 1. Introduction

Welcome to the Practical Design Thinking Workbook! This resource is designed to help you and your team approach problems more creatively and effectively, whether you are working on a new product, improving a process, or tackling a social challenge. Design thinking is a human-centred, iterative process used to understand users, challenge assumptions, and redefine problems in an attempt to identify alternative strategies and solutions.

## 1.1 Who Is This Workbook For?

- **Professionals** – Seeking to innovate within their organisation or industry.
- **Teams** – Looking for ways to work more collaboratively and generate fresh ideas.
- **Students** – Wanting to develop practical problem-solving skills for projects or coursework.

If you are curious, open-minded, and eager to make a difference, this workbook is for you!

## 1.2 How to Use This Workbook

This workbook is structured to guide you step by step through the design thinking process. Each section introduces a key stage, offers clear instructions, and provides practical examples so you can apply what you learn to your own challenges.

1. **Read** each section carefully to understand the process and its purpose.

2. **Work through the activities** and answer the guided questions.
3. **Apply the steps** directly to a real project or problem you are facing.
4. **Reflect** on your learning and adapt the approach to suit your needs.

**Example:** If you are working on improving customer experience at a call centre, you can use this workbook to map out customer needs, brainstorm solutions, test ideas, and implement changes.

## 2. Quick Overview of the Design Thinking Process

Design thinking consists of five main steps. These steps can be followed in order, but you may revisit earlier stages as your understanding evolves. The core idea is to keep the end-user at the heart of your solution.

### 2.1 The Five Steps

#### 1. Empathise

Understand the people you are designing for by observing, engaging, and listening to their needs and experiences.

- a. **Example:** Interviewing customers to learn about their frustrations with an online booking system.

#### 2. Define

Clearly articulate the problem you want to solve, based on insights gathered in the empathise phase.

- a. **Example:** Defining the problem as “Customers find the booking process confusing and time-consuming.”

#### 3. Ideate

Generate a wide range of ideas and possible solutions without judging them. Encourage creativity and think outside the box.

- a. **Example:** Brainstorming features for a new booking app, such as a step-by-step guide or live chat support.

#### 4. Prototype

Create low-cost, scaled-down versions of your ideas to test and explore how they might work in practice.

- a. **Example:** Sketching wireframes of the new app or building a clickable demo.

#### 5. Test

Try out your prototypes with real users, gather feedback, and refine your solutions based on what you learn.

- a. **Example:** Asking customers to use the demo app and provide feedback on their experience.

## 2.2 When to Use Design Thinking

- When tackling complex problems with no obvious solution.
- When you need to understand user needs more deeply.
- When innovation and creative thinking are required.
- When existing solutions are not working, and a fresh approach is needed.

**Tip:** Design thinking works best when used early in a project or whenever you hit a roadblock and need new ideas.

## 2.3 Common Mistakes and How to Avoid Them

- **Jumping to solutions too quickly**
  - Take time to empathise and define the problem before brainstorming ideas.
- **Not involving real users**

- Ensure you gather feedback from the people who will actually use your solution.
- **Being afraid to fail**
- View mistakes as opportunities to learn and improve your ideas.
- **Skipping the prototype or test stages**
- Always build and test your ideas before full implementation to catch issues early.
- **Lack of collaboration**
- Invite diverse perspectives-great ideas often come from teamwork.

**Remember:** Design thinking is about progress, not perfection. Use this workbook as a practical guide-and don't hesitate to revisit steps or adapt activities to fit your unique challenge.

## 3. Stage 1: Empathise – Understand Your Users

Empathising is the crucial first step of design thinking, where you immerse yourself in the users' world to truly grasp their needs, frustrations, and aspirations. The goal is to move beyond assumptions and uncover genuine insights that will ground your solutions in real experiences.

- **User Interview Template:** Use structured interviews to explore what users say, think, feel, and do regarding your product or service. For example, in a call centre improvement project, ask customers about the most challenging parts of their experience and what an ideal solution would look like.
- **Observation Checklist:** Spend time observing users in context, noting behaviours, obstacles, and workarounds. Imagine watching how customers navigate your website-are they hesitating at certain steps or abandoning tasks?
- **Empathy Map Template:** Capture what users say, do, think, and feel in a visual format to spot patterns and emotional drivers. This helps the team build a shared understanding of the user journey.
- **Sample Design Thinking Questions:**
  - What frustrates you about your current experience?
  - Which features do you use most often, and why?
  - Can you describe a time you felt delighted or disappointed?

**Outcome:** By the end of the empathise stage, you should have clear user insights and a well-documented problem context. For instance, after interviews and observations, you

might discover that users find the online booking system confusing and wish for clearer guidance.

## 4. Stage 2: Define – Frame the Right Problem

In the define stage, you synthesise your findings into a concise, actionable problem statement that reflects users' real needs. This step ensures that the challenge you tackle is relevant and user-centred, providing a strong foundation for creative solutions.

- **Problem Statement Template:** Articulate the challenge, such as “Customers find the booking process confusing and time-consuming.” A good template often includes the user, their need, and the insight that shapes your focus.
- **User Persona Template:** Build personas based on your research, representing different user groups with their goals, pain points, and characteristics. For example, “Busy parent Jane needs a quick and simple way to book appointments online.”
- **“Point of View” Statement Builder:** Create a statement that combines user needs and insights. For example, “How might we simplify the booking process for users who are pressed for time and easily frustrated by complex interfaces?”

**Outcome:** At the end of the define stage, you will have a well-defined, user-centred problem ready for ideation. Your team should feel confident that you're solving the right challenge-one grounded in real user experiences and needs.

## 5. Stage 3: Ideate – Generate Solutions

The ideate stage is all about unleashing creativity and coming up with a wide range of possible solutions to your well-defined problem. At this point, it's important to encourage open-minded thinking and avoid judging ideas too quickly. The aim is to move beyond the obvious and discover innovative possibilities that truly address user needs.

- **Brainstorming Sheet:** Use a structured worksheet to capture as many ideas as possible, no matter how unconventional. For example, if users struggle with a complicated booking system, team members might suggest options like a one-click booking button, a voice-activated assistant, or an interactive calendar.
- **“How Might We” Prompts:** Turn your problem statement into creative prompts to frame your brainstorming session. For example:
  - How might we make the booking process effortless for users?
  - How might we provide real-time guidance during each step?
  - How might we reduce the number of steps required to complete a booking?
- **Idea Prioritisation Matrix:** Once you have a list of ideas, use a matrix to sort them by impact and effort. Plot each idea on a grid-high impact/low effort ideas are prioritised, while those with high effort and low impact may be set aside for now. For example, adding tooltips to guide users might be low effort and high

impact, while completely redesigning the system could be high effort but necessary for long-term success.

**Outcome:** By the end of the ideate stage, you should have a diverse list of potential solution ideas. These could include quick fixes, ambitious redesigns, or entirely new features-all grounded in your understanding of the users' needs and challenges.

## 6. Stage 4: Prototype – Make Ideas Tangible

Prototyping is where you bring your ideas to life in a simple, low-cost way so you can see how they might work in practice. The focus is on building just enough to test key features and gather feedback-not on creating a fully finished product. This stage encourages learning through doing and helps you quickly spot what works and what doesn't.

- **Low-Fidelity Prototype Checklist:** Use a checklist to ensure your prototype covers the essentials. For example:
  - Does it include the core journey or main features?
  - Is it easy to change or update after receiving feedback?
  - Can users interact with it in a way that simulates the real experience?
- **Wireframe/Sketching Pages:** Create simple wireframes or sketches to visualise your solution. For instance, draw the sequence of screens a user would see when booking an appointment, showing where they might enter details, select times, and receive confirmation.
- **Prototype Feedback Form:** Develop a short form to collect structured feedback from users as they interact with your prototype. Ask questions like:
  - What did you find easy or difficult to use?
  - Which features were most helpful?
  - What suggestions do you have for improvement?

**Outcome:** At the end of the prototype stage, you will have one or more simple prototypes ready for user testing. These tangible models help you refine your ideas quickly and effectively, paving the way for more confident, user-centred solutions.

## 7. Stage 5: Test – Learn and Improve

Testing is the stage where you put your prototypes in front of real users to gather honest feedback, validate your assumptions, and uncover unexpected insights. This iterative process is essential for refining your solution and ensuring it truly meets users' needs. The goal is to learn what works, what doesn't, and how to make meaningful improvements before final implementation.

- **User Testing Plan:** Create a structured plan outlining your objectives, target users, testing scenarios, and key questions. For example:
  - Objective: Assess whether the new booking interface is intuitive.
  - Target users: Frequent bookers aged 25–45.
  - Scenarios: Ask users to complete a booking from start to finish.
  - Key questions: Where do users hesitate? Which instructions are unclear?
- **Feedback Capture Sheet:** Use a template to record observations, quotes, and suggestions during testing. This might include:
  - User comments: “I wasn’t sure which button to click next.”
  - Observed behaviour: Several users missed the confirmation step.
  - Suggestions: Add clearer visual cues for each stage.
- **Iteration Tracker:** Document changes made in response to feedback and monitor their impact. For example:
  - Version 1: Added tooltips to explain features.

- Version 2: Shortened the booking process by removing unnecessary steps.
- Outcome: Users completed bookings 30% faster in Version 2.

**Outcome:** At the end of the test stage, you should have actionable feedback and a clear improvement plan. This ensures your solution evolves with user input, resulting in a product or service that's both effective and user-friendly.

## 8. Real-World Use Cases (Short Examples)

- **Applying Design Thinking in Product Development:**
  - A tech startup uses structured interviews and empathy mapping to uncover why users abandon their mobile app. By prototyping a simplified navigation system and testing it with users, they reduce drop-offs and increase engagement.
- **Applying Design Thinking in Marketing:**
  - A retail brand observes shoppers in-store and identifies confusion around product placement. They brainstorm new signage ideas and prototype them, testing with customers to find the most effective layout, resulting in improved sales.
- **Applying Design Thinking in Education:**
  - A school gathers feedback from students about online homework platforms. Teachers prototype a new interface, run user tests, and iterate based on student suggestions. The final platform is easier to use, and homework completion rates rise.

## Conclusion

Design Thinking offers a practical and human-centered way to approach complex problems. By focusing on real user needs and applying the five-stage process, teams can move from assumptions to solutions that are more relevant, usable, and effective in real-world situations.

When applied consistently, Design Thinking helps build stronger problem-solving capabilities, improves collaboration across teams, and supports continuous learning and improvement. Whether you are working on products, services, processes, or customer experiences, this approach provides a clear structure for turning insights into meaningful outcomes.

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