

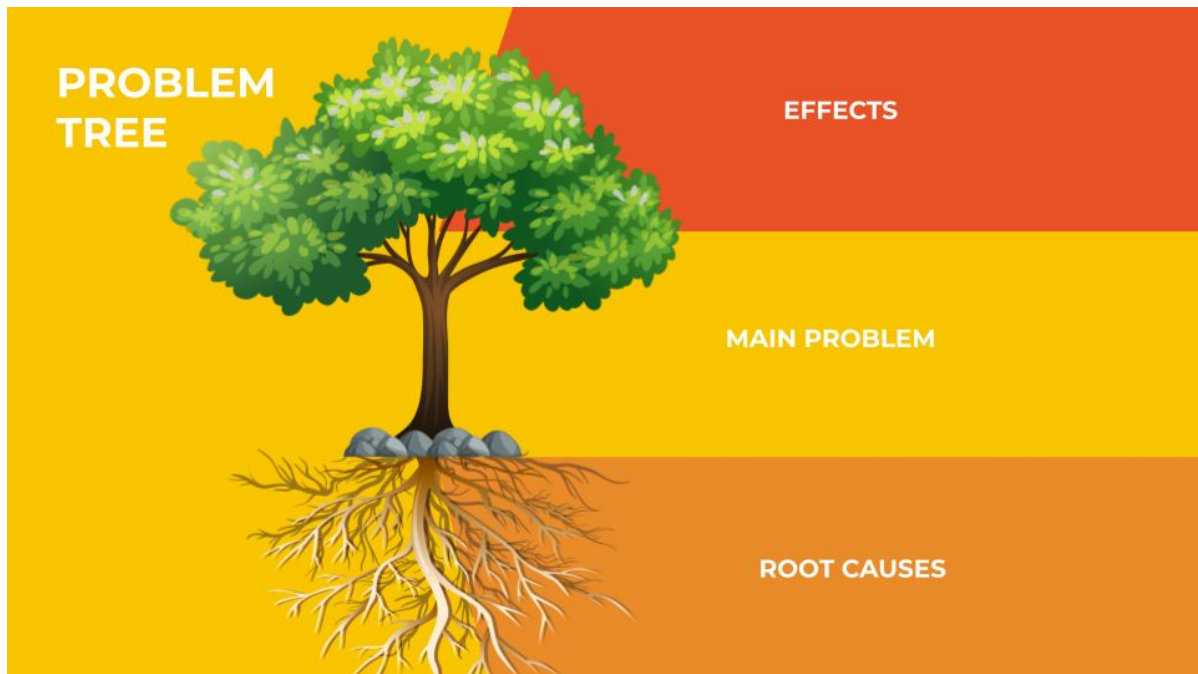


Ideation Lab

Tools Guide



TOOL #1 - PROBLEM TREE



Before you can design a solution, you must first identify the problem you are trying to solve. The Problem Tree helps to find solution areas by mapping out the causes and effects of an issue. Through the Problem Tree, the main problem can be broken down into smaller and easy-to-define chunks.

Step 1: Identify the Main Problems

- Before starting the Problem Tree, you need to identify main problems you want to solve (not problems you are facing). This is a free brainstorming session, where all the problems are captured. This should last for 15-20 minutes.
- Afterward, one central problem should be identified to serve as the trunk of the tree. It is important that the problem is broad enough that many potential solutions can be created, and narrow enough that is manageable. For example, “plastic pollution” may be too big of a problem to start with, but “plastic pollution caused by cosmetic packaging” would be better.

TOOL #1 - PROBLEM TREE

Step 2: Root causes

- Coming down to the bottom of the tree, you need to explore the root causes of the problem. Simply put, what pre-existing conditions, problems, cultural dynamics, etc. made it so that this problem exists today? It is important that root causes go at least 3 levels deep. This can be done by asking questions such as 'why' and 'how come'.

Step 3: Effects

- On the branches of the tree, you will find the effects. These are the long-lasting consequences that this problem will cause if it remains unsolved. Often overlooked in the Problem Tree and not prioritized due to thinking more about the root causes, the effects are very valuable. In fact, the effects of the Problem Tree often help teams to identify their value proposition.


Step 4: Problem Area Selection

- Once the Problem Tree is complete, identify the root cause you would like to focus on. For a solution to be effective, it needs to address only one root. For example, for the central problem of 'plastic pollution caused by cosmetic packaging', will have root causes such as: 'biodegradable packaging options that maintain product quality are limited' and 'refillable options are expensive and inconvenient'. Focus on the root causes that you have more expertise and understanding of.

Things to look out for

When completing the Problem Tree, you must be **as objective as possible**. The problem, the root causes, and effects need to be free of judgment, bias and subjectivity. Subjective opinion appears in root causes that you identify with, or that you might not know enough about. For example, if the problem to be solved is "plastic pollution caused by cosmetic packaging", a biased root cause may be "beauty companies don't care about the environment".

TOOL #2 - PERSONA CANVAS

PERSONA CANVAS		PROJECT NAME: _____	
THIS IS ME! Draw a portrait of your persona 	I am... (age, nationality, occupation, family role, etc...)	I dream of...	I am afraid of...
My life would be easier if...	People say about me that...	I am good at... (describe your skills)	The most important things to me are...



Once the central problem has been identified, you must now develop empathy with the people who live with this problem; the main stakeholders. A persona is a character made with the common characteristics found in a group. Yet, rather than describing a group, the persona is made into a singular person. In a proper design practice, multiple personas should be created, one for each stakeholder group. However, if you only have time to create one persona, it should be the persona you want to design the future solution for (i.e. the future user/customer).

TOOL #2 - PERSONA CANVAS

How to complete it

The persona will be created by using a Persona Canvas. However, before starting, brainstorm using post-its on the type of persona you would like to create.

The persona canvas is written using 'I statements' for a reason - it is to create a sense of empathy with the persona. When filling in the Persona Canvas, and even when presenting it, you should be speaking as the persona. So rather than writing "he dreams of building a new house outside of the city center" you should write "I dream of building a new house outside of the city centre". It is a small difference, but it makes an impact on the capacity to connect with the persona.

Things to look out for

- It is important that the persona represents a person, and not a role, like Mom, Dad, Taxi Driver etc. They should have a name, a face and identifying factors that make them human (and relatable).
- In the case that the future customer will likely be a company (i.e. a B2B model), the persona should be the person in the company who will directly benefit from the product or service - for example, Head of Business Development, Director of HR, Loan Officer etc.
- When filling out the Persona Canvas it is important to develop a 360° view of the person's life. It is important to show their relationship to the problem, but also dreams, fears and habits that are a part of their everyday life, and not just related to the problem.

TOOL #3 - HOW MIGHT WE STATEMENTS

'How might we' statements are a pivotal part of the innovation process. They provide a scope for the solution. No matter what form the solution takes over time, it should always address the initial "How Can We" statement - the purpose for its very existence.

How to complete it

Using the roots of the Problem Tree and the stakeholder defined in the Persona Canvas, you need to find areas where you can intervene and propose potential solutions. This is done by creating "How Might We" statements. They are structured as so:

- **Structure:** How might we *(intended action)* for *(primary user)* so that *(desired outcome)*
 - **Example:** How might we *make a more convenient 'refillable cosmetic' user experience* for *busy cosmetic consumers on a budget*, so that *refillable containers become the preferred choice?*
- The *'intended action'* should always include a **verb** - this is the action the team wants to take with the solution. It should not state what the solution is.
- The *'primary user'* will be the type of person the solution is being designed for. This may or may not be the person who pays for the solution (depending on if the solution requires a B2C, B2B or not-for-profit business model). Don't get hung up on the topic of user vs. customer for the time being. The focus in this stage is on the user.
- The *'desired outcome'* is the change the solution aims to make. Inspiration for the desired outcome can come from 'effects' in the Problem Tree. What consequences will this solution avoid? What positive change will it inspire?

TOOL #3 - HOW MIGHT WE STATEMENTS

How to use it

The HMW statement is a tool for both brainstorming and keeping you accountable during the future design stages.

When brainstorming, propose solutions by answering the question with 'We might' statements. If the HMW statement can only be answered in 1-3 ways, it is too specific and blocks creativity. If it is too broad to answer with simple and actionable answers, it is too broad to provide a scope. A good HMW statement should be able to have in 10-20 different solutions.

When designing the solution, the HMW statement should always be kept in mind. As you test different ways of solving the problem, the HMW statement should always hold you accountable. If the proposed solution does not respond to the HMW statement, then it is out of scope.

Things to look out for

Watch out for HMW statements that are already solutions. For example, the following statement is far too specific and too leading - the range of possible answers is very limited, "How might we create convenient collection points for empty cosmetic containers and automatic refills for busy cosmetic consumers on a budget so that they prefer refillable solutions?". However, "How might we make people prefer refillable cosmetics?" is too vague.

TOOL #4 - DESIGN CONSTRAINTS

Design constraints define the limits that a solution must work within - these are the non-negotiables that a solution designer must respect. Once the HMW statement is created, Design Constraints can start being written. However, they should be continuously collected, challenged and validated throughout the entire design process.

The four categories of design constraints are:

1. Desirability

These refer to the **value** you will deliver to your users and/or stakeholders. This value can be **tangible** (the product is easy to use) and/or **intangible** (the product evokes a certain feeling) - make sure you consider both.

Example

- The solution must be as convenient as shopping for non-refillable cosmetics.

2. Viability

These refer to the **business model** - meaning it combines the **production costs** and the **financial capacity** of your customers (and/or users). As you are at an early stage in your design process it is normal if these are not exact (yet).

Example

- The solution must be at the same price point, or cheaper, than non-refillable choices.

3. Feasibility

These refer to what is **functionally possible** - they can be a combination of the resources and technology you are currently equipped with.

Example

- The solution should not create new habits and fit into existing infrastructure and resources (shops, online shopping etc.)

4. Integrity

These refer to the **social and environmental** considerations that you must have beyond the scope of your problem. These include making your solution parts as circular as possible and mitigating any negative consequences you could have on external stakeholders.

Example

- The solution must not generate more plastic pollution through other forms of packaging (e.g.. delivery)

TOOL #5 - STORYBOARD OF THE PROBLEM



Storyboards are visual tools used to demonstrate how a person experiences a problem. For design purposes, they can be used to explore how a person experiences a particular problem or a solution (i.e. product or service). They are very important for creating empathy with a person and for finding opportunities to create and/or improve solutions. At this stage in the design process, the Storyboard is being used to bring together the previous tools - the **Problem Tree** and the **Persona Canvas**. This Storyboard will show how the persona experiences the problem in their daily lives.

Step 1: The Main Character

- Using the persona that was previously created, you need to create a Storyboard that shows how that person experiences the problem. The storyboard should include what pre-existing solutions exist, what resources exist in this person's daily life, and how they are not solving the problem.

TOOL #5 - STORYBOARD OF THE PROBLEM

Step 2: The Story

- Start out with 5 to 10 minutes (max) of brainstorming on what problem-related experience you want to explore. Often, problems are complicated and touch many parts of a person's life. In a proper design process, many storyboards should be created, each one exploring a different experience related to the problem.

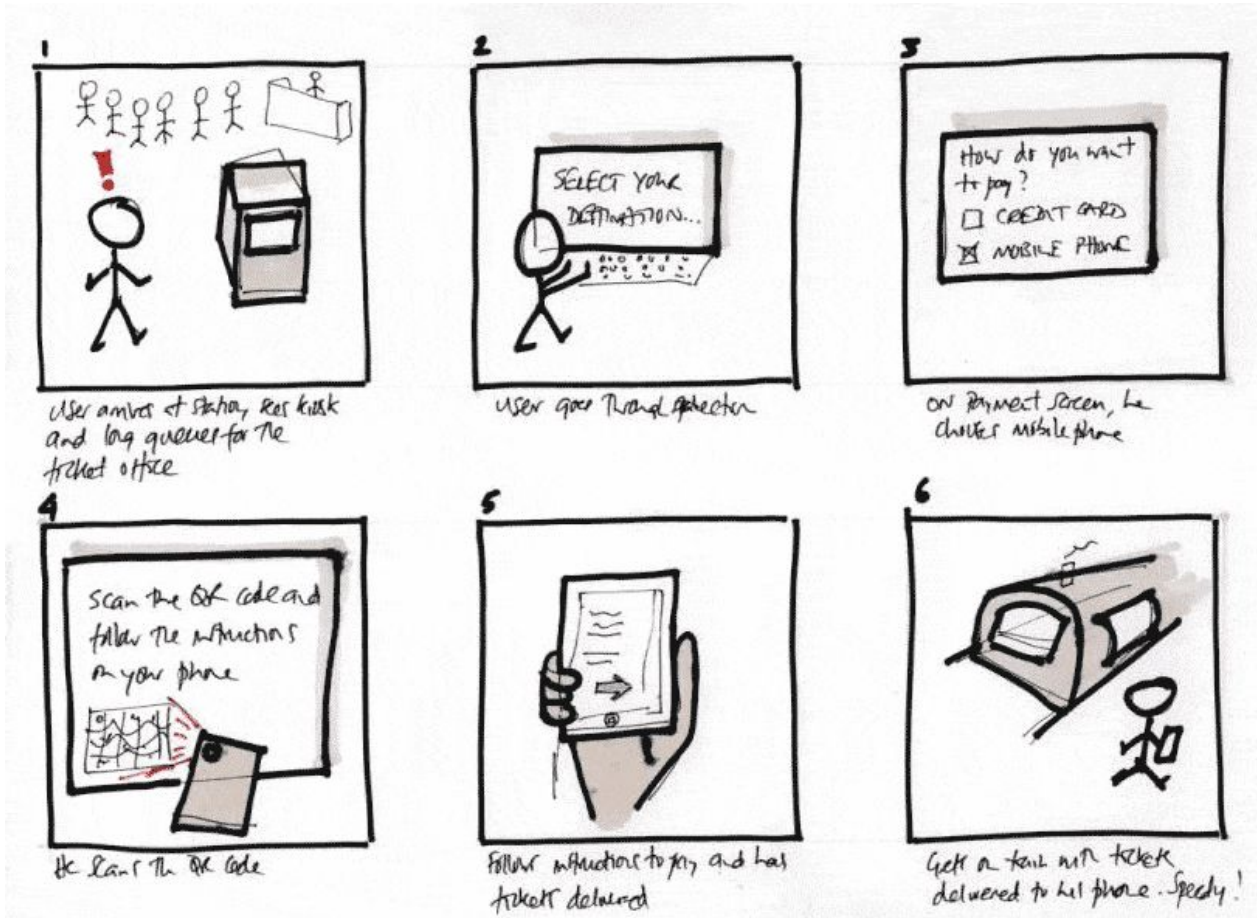
Step 3: Drawing the Storyboard

- On a large sheet of paper, draw large boxes (like in a comic book), leaving enough space for some small text below each box. As a standard, aim to create a storyboard with 10-12 boxes - more if possible.
- Each box represents a moment in the person's journey. Each box should be a logical next step following the previous box. No jumping around - every detail needs to be included.
- In each box, draw the scene of that particular moment. It should be complete with the actions being carried out, and what is happening in the environment around them. Below the box, you should include a small basic text for context that explains what is happening.

Step 4: Opportunity Areas

- As you create the storyboard, use post-it notes to identify 'opportunity areas'. Opportunity areas are moments in the storyboard where you could possibly intervene to solve the problem or prevent it from happening, and/or resources or pre-existing solutions that you could build upon. For example, an opportunity area could be when a person enters a shop - as we know, there is an environment where they could easily access our solution. This is an important first step in brainstorming the potential solution you want to create.

TOOL #5 - STORYBOARD OF THE SOLUTION



Still using the persona that was previously created, this storyboard will now show how they experience the solution. This is the first prototype of your solution. The storyboard should show how the person becomes aware of the solution, how they interact with it (in detail) and the benefit that it brings to their lives.

Step 1: Brainstorming the Solution

- Prior to making the storyboard, spend some time brainstorming possible solutions. This brainstorming can be done using an HMW statement and the previously completed Storyboard of the Problem. The Storyboard of the Solution needs to feature just one of these solutions.

TOOL #5 - STORYBOARD OF THE SOLUTION

Step 2: Drawing the Storyboard

- Once you have found a solution, start drawing the storyboard. On a large sheet of paper, draw large boxes (like in a comic book), leaving enough space for some small text below each box. As a standard, aim to create a storyboard with 10-12 boxes - more if possible.
- Each box represents a moment in the person's experience with the solution. It should show what the user sees, with no backend details. For example, in a Storyboard of a restaurant, one would only see the dining room, not the kitchen area.
- In each box, draw the scene of that particular moment. It should be complete with the actions being carried out, and what is happening in the environment around them. Below the box, include a small basic text for context that explains what is happening.

Step 3: Risk Areas & Assumptions

- Once the Storyboard is complete, identify 'risk areas' and 'assumptions'. Risk areas are moments in the storyboard where you risk losing the person. These can be moments when the jump from one step to the next does not make sense, the value proposition is not compelling enough to continue, or it is not clear to the persona. Assumptions are things that you believe to be true (and need to be true in order for the business model to work), but that need to be validated.

Things to look out for

When completing the storyboard for the first time it is very common to see it divided into unequal parts. For example, out of a 12 square storyboard you could see, 3-4 squares of context demonstrating how they live with the problem, 3-4 squares of discovery, 1-2 squares of how they interact with the solution, and 1-2 squares of how their lives are improved. It is very important that the large majority of the squares focus on how they interact with the solution (aka how it works), this will provide you with the most valuable insights for future iterations.



PLACE