Step 2: Define the problem

Great minds, such as Elon Musk, billionaire founder of Space X and Tesla, have stated that the hardest part of innovation is not coming up with the answer to a problem but coming up with the right questions in order to define problem.

So, now that you've explored the needs of your customers, it's time to **make sense of the information you've gathered** and identify connections and patterns. You may also find yourself re-defining the problem after you've ideated, prototyped, or tested and found greater clarity about the problem.

The goal of this stage of design thinking is to **explicitly express the problem in a meaningful problem statement**, which is also known as a Point of View statement. This statement will be the basis for the process for ideating possible solutions. But before developing this statement, there are a number of questions to ask to further clarify the problem.

CLARIFYING THE PROBLEM

The first question to ask is, "have we learned everything we need to know from the empathize phase in order to define the problem?" Was anything identified during your observations or interviews that needs to be further researched in order to have enough information to move forward? If so, what topics do you need to research and what do you need to know?

If you think you have enough understanding to move forward, the following question will help you identify key insights that stand out from the various information as well as identify factors that impact the core problem. You can use the story mapping process we discussed in the empathy phase or the brainstorming exercise we'll go over in the ideation phase to explore these questions with your team.

- What patterns have emerged?

- Did you notice anything interesting?

- What did you observe in specific situations that may be applicable to the larger context?

- What other factors exist that contribute to this problem?

- What other factors are impacted by this problem?

- What are the core characteristics of your users? What makes them your core target customers?

- What are the most important NEEDS that exist that must be fulfilled in order to create a satisfactory solution?

- Is there one need that is more vital than the others?

- What does all of this really mean?

POINT OF VIEW STATEMENTS

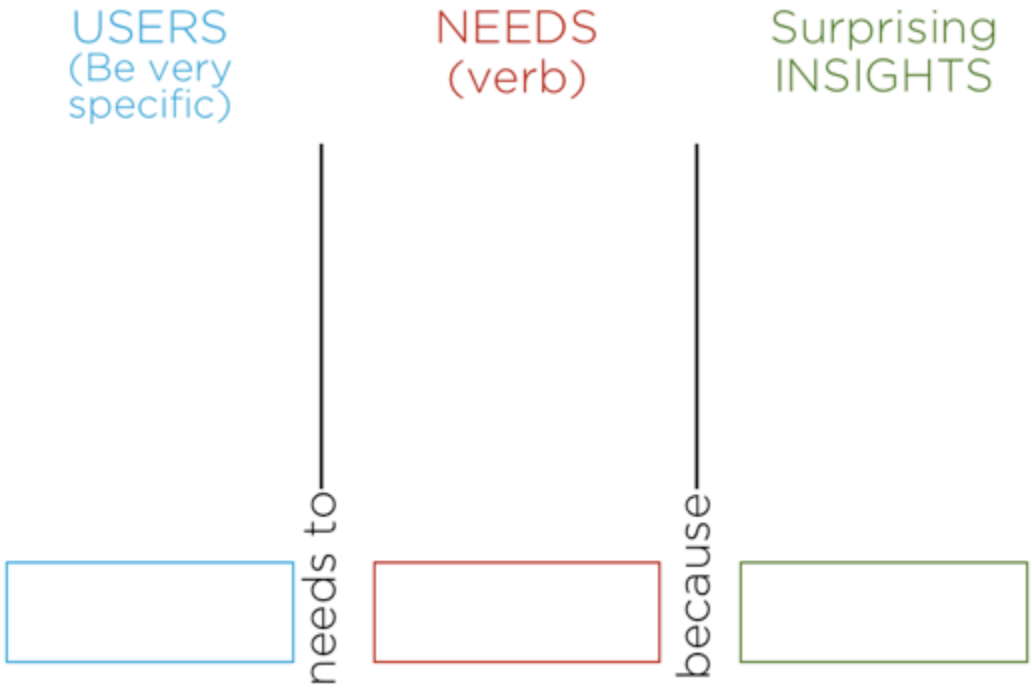
Now it's time to take the answers to the above questions and focus in more narrowly on the core problem to create a Point of View (POV) or problem statement. The POV statement is made up of 3 factors:

1. who the users are
2. what their needs are
3. the insights that came from the research

These 3 factors are seemed together into a statement by filling in the blanks.

_____(specific users) needs _____ (need) because _____ (insight).

STEP 1: Before you create any statements, use a 3 segment **brainstorming or story mapping** space to identify ideas for alternatives for each factor.



Users: Generate ideas of specific users in the first segment. For example, if your clients were tourists, you could include specific groups of tourists, such as newlyweds, seasoned world travelers, or families with children.

Needs: This is a KEY area to pay attention to. You are not trying to identify WHAT they need, such as a solution to the problem. This comes later. You're trying to identify their possible inner needs or motivations that are the underlying cause of their problem. For example, if a young girl cannot reach the books on the upper shelf in the library, you may assume simply needs a ladder, however the challenge is to look deeper. Perhaps she is seeking acknowledgement for being a

good student or maybe she's wanting to get a book in order to increase social time with her dad. When you're writing needs that correspond to specific users, identify that they go together.

Insights: Look at the insights you previously generated—those patterns that emerged or factors that stood out. The best insights to use are the ones that are the most surprising or extreme because they'll trigger bigger thinking when it comes time to brainstorm solutions.

STEP 2: Now, try piecing together different segments into POV statements. You will create multiple statements with the goal of focusing narrowly on each core problem. You can also make multiple versions from which to choose.

STEP 3: Generate 1 or more POV statements.

_____(specific users) needs _____ (need) because _____ (insight).

GENERATING BRAINSTORMING QUESTION

Finally, use these statements to generate questions to be brainstormed. Looking at your statements, ask your team “how might we…”

For example, *how might we help families (user) feel more safe traveling with their children (need) in economically unstable countries (insight)?*

Create a list of questions that need to be answered and then tackle them one at a time during ideation and brainstorming, which is coming up next.

IDENTIFY OUTCOMES AND CRITERIA

Before you move forward and ultimately reach the testing phase, it is important to know what you will be testing FOR. This means that you need to understand your ***goals or the outcomes*** that you need to achieve in order for the problems to be solved. These goals or outcomes need to be ***specific and measurable***.

At this point you don't know the solution, but you can identify the ***criteria that would indicate that the problem has been solved.*** The following questions will help you identify the criteria and outcomes you will use to assess your testing results later.

Remember that these goals or outcomes need to be specific and measurable. Having your users "lose weight" is too vague. How much weight? And how will you measure it?

- What are the desired outcomes?
- How would you know that the outcomes have been met?
- What are the criteria for a successful solution?
- How will you measure whether these criteria have been met?
- What would it look like when this problem is solved?
- What results or impacts will occur BECAUSE this problem is solved?
- Why does this matter?

The attached Outcomes Chart can be used to track these criteria and the results during testing.