

AGILE PROBLEM SOLVING

HEILMEIER CATECHISM



What are you trying to do? Articulate your objectives using absolutely no jargon.

How is it done today, and what are the limits of current practice?

What is new in your approach and why do you think it will be successful?

Who cares? If you are successful, what difference will it make?

What are the risks?

How much will it cost?

How long will it take?

What are the mid-term and final “exams” to check for success?

EXERCISE 1: ARTICULATE THE PROBLEM ALONE AND TOGETHER

The first step is to craft a clear initial description. This step is designed to get past a vague statement of an issue. to a specific and actionable statement. A well formulated challenge is one that is half-solved already. Thus, taking. the time out to address problem definition explicitly may begin to yield creative and innovative answers.



EXERCISE 2: WRITE THE PROBLEM DEFINITION

Write a one-paragraph problem definition. It should address the basics, including:

What is the problem?

When does it occur?

Where does it occur?

Who is impacted by the problem? What are their needs? What are their incentives?

Which additional patterns or trends can be observed about the problem?

How has this not been solved yet?

EXERCISE 3: IDENTIFY ROOT CAUSES

The next step is to break down the problem into smaller units by diagnosing the situation: what are the root causes of the problem?

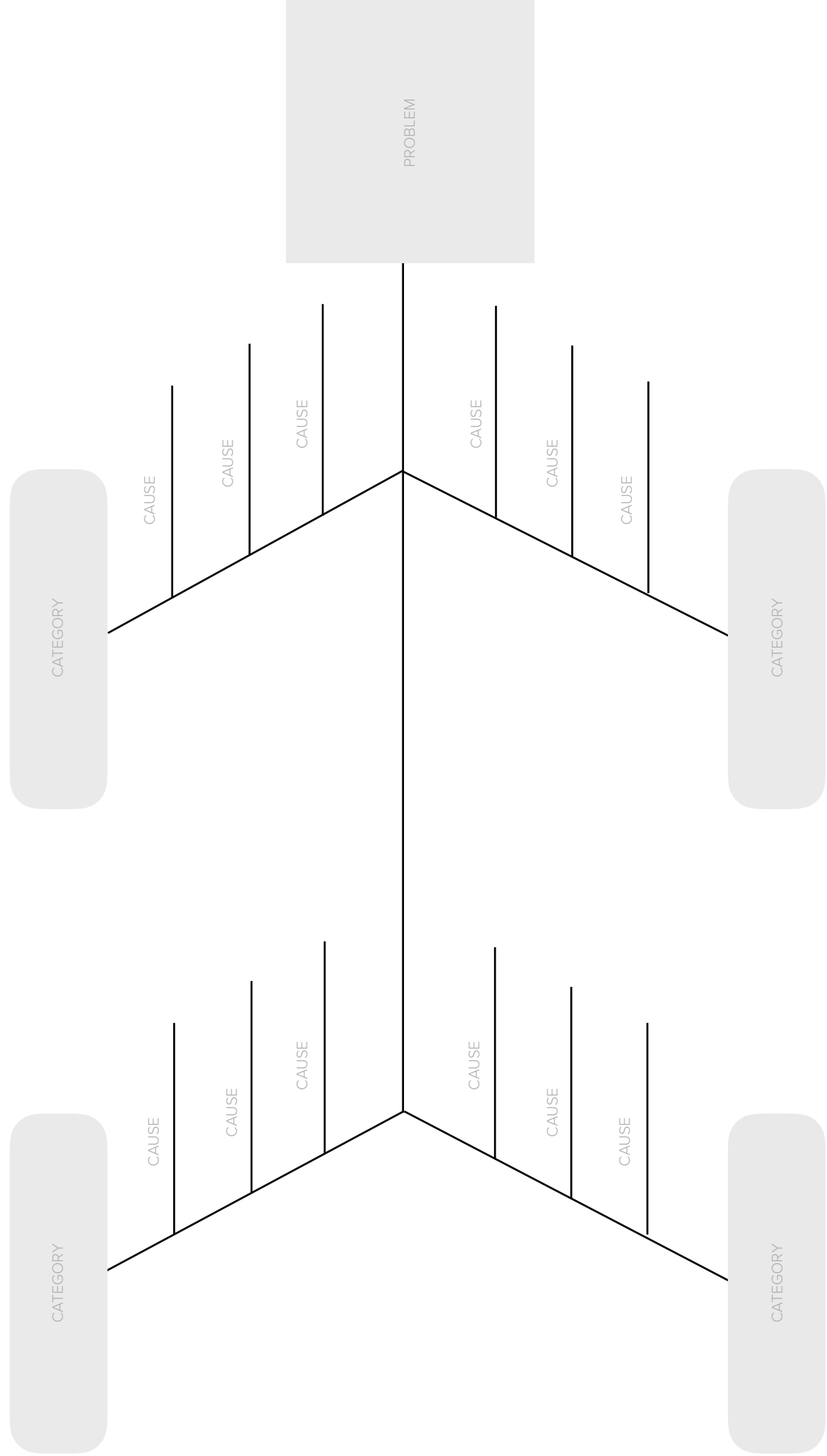


Now write down:

1. Why do you think the problem is happening?
2. Make a list of root causes.
3. Develop a hypothesis for the most likely root causes.
4. Repeat 5 times to create a likely list (the 5 Why's)
5. Prioritize those problems that are solvable by you working with others.
6. Articulate criteria for success. A properly defined problem has indicators that can be used to determine when the frequency or the severity of the problem has been reduced

EXERCISE 4: VISUALIZE YOUR PROBLEM

Finally, consider making a visual representation of your analysis thus far to represent the statement of the problem and its root causes. Creating a picture can help to further clarify assumptions, arrive at consensus among collaborators and prioritize among root causes. Causality alone is not enough to determine how and where to intervene. The causes also have to be actionable by those seeking to act.



EXERCISE 5: TEST THE PROBLEM DEFINITION



L Have I *limited* the scope? In other words, narrow a large problem down to more readily definable smaller problems

A Have I described something *actionable*? Making the problem more specific makes it more actionable. What would render the challenge actionable?

S Have I described something *specific*?

S Have I described a problem that will be *supported*? In other words, is this a problem that my organization cares about enough to take action and invest in an evaluation process to determine if the solutions will work

O Have I identified a problem *owner*? Someone needs to be on-point to manage the problem-solving process and communicate back with collaborators. Thus, a well-authored problem definition is one where there is someone whose responsibility it can be to manage the solving process.