

Simplex Problem Solving Cheat Sheet

Problem solving is an exceptionally important workplace skill. Being a competent and confident problem solver will create many opportunities for you. Below, we outline the tools and strategies you can use for each stage of the problem-solving process.

Step 1: Find the Problem - As part of an effective problem-solving process, you need to look actively for problems – even when things seem to be running fine. Proactive problem solving helps you avoid emergencies and allows you to be calm and in control when issues arise.

How to improve: Brainstorm political, economical, socio-cultural, and technological factors that could present problems. Brainstorm opportunities in your future to identify possible problems that might arise. Brainstorm possible obstacles to your goals. Estimate risk factor occurrences to decide if you should avoid or tackle potential risks.

Step 2: Find the Facts - You need information. What factors contribute to the problem? Who is involved with it? What solutions have been tried before? What do others think about the problem?

How to improve: Research the problem thoroughly. Verify sources. Revisit past solutions for details. Take the time to get multiple views on the situation. Make a list of possible players and resources.

Step 3: Define the Problem - Define the problem clearly and completely. Writing a clear problem definition forces you to establish specific boundaries for the problem. This keeps the scope from growing too large, and it helps you stay focused on the main issues.

How to improve: Identify the people involved. Identify the bigger picture for which this problem falls within. Identify the constraints that affect the problem. Use [Cause and Effect Analysis](#).

Step 4: Find Ideas - Start generating ideas for a solution. The key here is to be flexible in the way you approach a problem. You want to be able to see it from as many perspectives as possible.

How to improve: Brainstorming... [The Stepladder Technique](#), [Starbursting](#), or [Rolestorming](#).

Step 5: Select and Evaluate - After finding ideas, you'll have many options that must be evaluated. It's tempting at this stage to charge in and start discarding ideas immediately. However, if you do this without first determining the criteria for a good solution, you risk rejecting an alternative that has real potential.

How to improve: Examine to see how well each solution provides the required results, determine if the solution will satisfy the majority, [Paired Comparison Analysis](#), [Grid Analysis](#).

Step 6: Plan - Choosing a solution is not the end of a problem-solving process. This phase involves lots of planning and preparation. [Action Plans](#) outline who will do what, when, and how.

How to improve: Create specific actions to take, create benchmarks to measure progress, create a timeline, create smaller chunks to be executed, create a visual plan, [Impact Analysis](#), [Force Field Analysis](#).

Step 7: Sell the Idea - You must convince other stakeholders that your solution is the best one. You'll likely meet with resistance, so before you try to "sell" your idea, make sure you've considered all the consequences.

How to improve: Listen to what people say, and make changes as necessary, know what you're talking about, adapt your solution to the buyer, demonstrate your credibility, [Create a Value Proposition](#).

Step 8: Act – Implement. This is the final action plan, **but not the end**. You always go back and revisit your process to find improvements.

How to improve: Record the results of your actions, schedule a time to revisit the process, allow for feedback from others.