

The Problem Solving Model

The effort put towards solving a problem should correspond to the complexity of the problem being solved. Many of today's problems have greater levels of complexity and therefore require not only a more rounded solution, but a more rounded and structured approach to solving them.

At Berlineaton, we adapted George Polya's 4-step model (c. 1945) into a more robust 7-step model, modernizing it for today's workplace and challenges. It has helped us, and our clients solve problems, large and small and is adaptable for both. Its key features are that it: assumes a collaborative approach, recognizes that diversity is a strength and calls on this throughout, and is structured with each step having a clear purpose. At its foundation are Covey's principle of 'begin with the end in mind' and Deming's principle of 'get it right the first time'. The beauty of this model is in its simplicity and its efficiency; it accelerates the implementation of solutions.

A critical feature of this model is **to gain commitment at each step**. Do this by testing assumptions with others outside of your team. In doing so, you will create better outputs at each step and stronger commitment to the eventual solution.

On page 2, we provide more information about each step.

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Start by thinking about the kinds of skills you need on your team to solve the problem and recruit your diverse team. Then...

Step	What To Do
1 DEFINE THE PROBLEM □	The key to solving a problem is starting with a very clear understanding of the problem. Repeatedly, we see teams rush through this step and then circle back (often in frustration) to reframe the problem. This step answers the questions: What problem are we trying to solve? Why is it important? What are the benefits / costs of solving / not solving it? Do we have the right team members?
2 GATHER THE FACTS □	With a clear problem definition, the next step is to gather information to gain a better understanding of the problem. This step answers the questions: Why is this a problem? How big is it? How long has it existed and why? What are the root causes? This fact gathering can include historical facts, perspectives, and qualitative and quantitative information. It creates the narrative for why the problem needs to be solved. At this step, you may also need to reframe the problem and confirm you have the right team members. Circle back as necessary to recalibrate the team and the problem definition.
3 BRAIN STORM SOLUTIONS □	The objective at this step is to encourage creative solutions and brainstorm a diverse set of possible solutions. This answers the question: What are possible solutions to solving this problem? It is important to approach this in a generative way and to draw upon the unique experiences and skills of your team members. The more solutions you generate, the more likely you'll find the best one.
4 EVALUATE AND PICK □	Using your team's critical thinking skills, weigh each of the solutions using criteria such as cost / benefit / effort / impact and pick a solution. This step answers the question: What is the best solution and why? Other questions to consider at this stage include: Why is this solution better than others? What would have to be true for this to work? What steps are required for a successful implementation? How can we apply agile principles to the solution?
5 IMPLEMENT □	At this step, you are implementing the solution, watching, and gathering facts about its success. This step answers the question: What are we seeing and learning?
6 EVALUATE □	The objective of this step is to critically assess the solution's progress and/or success. This step answers the question: What is working / not working and what do we need to do to recalibrate, if anything? What lessons should we take forward to help us solve other problems?
7 CELEBRATE □	Before moving onto your next challenge, pause and celebrate the success of this one!

How to Gain Commitment

At each step ...

- Ask others for their thoughts, ideas, and opinions
- Test assumptions by asking specific questions
- Be inclusive
- Use an appreciative inquiry approach
- Keep leaders engaged and enlist their support