

# Problem Solving: Plan-Do-Check-Act

## Description:

This tool provides guidelines for using the Plan-Do-Check-Act approach and the steps to engage in the process.

## How it can be used:

Effective problem-solving requires planning, testing, reviewing and refining a solution. The Plan-Do-Check-Act (PDCA) cycle is a tool that provides a structured process to approach problem solving. Follow the steps below when you need a problem-solving approach that requires a methodical yet iterative process. Just as a circle has no end, the PDCA cycle should be repeated again and again for continuous improvement.

---

## Benefits of using PDCA:

- To identify new solutions and improvements to processes that are frequently repeated
- To explore potential solutions to problems and make improvements using a controlled approach before selecting one for full implementation
- To avoid wasting resources due to full implementation of an ineffective solution

## When to use PDCA:

- As a model for continuous improvement
- When developing a new or improved design of a process, product or service
- When defining a repetitive work process
- When planning data collection to verify and prioritize issues

The four phases in the Plan-Do-Check-Act Cycle are:

### 1. Plan:

- Identify the problem
- Analyze the problem
- Map the process that is at the root of the problem
- Gather information required to identify a solution

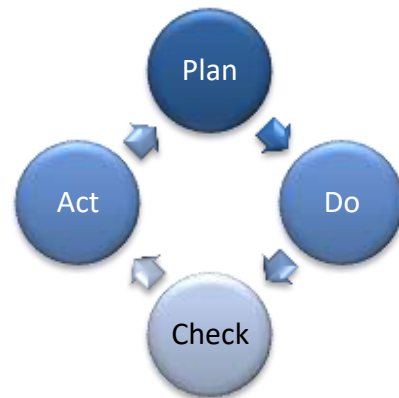
### 2. Do:

- Generate several possible solutions
- Select the best potential solution
- Test a potential solution using a small-scale approach such as a pilot project or test trial

\*Note that the 'Do' phase refers to 'Try' or 'Test'. Implementation happens in the 'Act' phase.

### 3. Check:

- Measure the effectiveness of the pilot project or trial
- Identify what was learned
- Analyze whether and how it could be improved



- Depending on how successful the pilot project or trial was, the number of areas for improvement, and the scope of the initiative, consider repeating the 'Do' and 'Check' phases incorporating the additional improvements
- Once you confirm that the costs of repeating the 'Do-Check' sub-cycle further would outweigh any additional benefits, move onto the 'Act' phase

**4. Act:**

- Implement the improved solution
- Continue measuring to ensure the solution is working
- Loop back to the 'Plan' phase and seek further areas for improvement

**Some examples of the types of activities during each phase are:**

