



## Plan-Do-Check-Act (PDCA) Cycle

The PDCA cycle is an iterative, four-stage problem-solving approach for continually improving processes, products, or services. PDCA can also be used to test and implement solutions to resolve specific issues.

**Plan** - This initial phase involves identifying and analyzing the problem or opportunity, gathering relevant data, developing potential hypotheses for the root causes, and deciding which solution(s) to test first. The planning step establishes what will be done.

**Do** - The next phase is implementing the solutions, usually on a small scale if possible. The do phase involves testing the potential solutions to collect data on their effectiveness. It is an experimental stage to see what happens when the plan is executed.

**Check** - This follows implementation and involves studying the results of the testing, measuring effectiveness, and determining whether the hypothesis is supported. The check phase assesses the outcomes of the do stage.

**Act** - The last phase is focused on taking action based on the results. If the solution was successful in the tests, full implementation follows. If not, the cycle repeats with a new plan. The act phase institutes the outcomes of the check stage.

Key aspects of PDCA:

- Iterative process that undergoes continual improvement
- Short cycles allow faster learning and correction
- Prevention and problem-solving oriented
- Data-driven measurement at each stage
- Feedback loop leads to incremental optimization

The PDCA cycle drives organizational learning and improvement by cycling rapidly through planning, testing, assessing, and implementing solutions. It provides a simple yet powerful approach for systematically testing and operationalizing ideas to continually improve processes, products, services, and organizations.