

105 - PDCA (Problem Solving)

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Overview

A major problem solving used by Toyota that focuses upon finding the root cause of the problem, through a structured approach.

Objective

- To continuously improve the work processes by eliminating problems.
- To encourage all personnel to become problem solvers in the organization
- Expands horizon of employees in providing a logical approach to resolving process issues by using data versus judgment or opinion.

Topics

1. PDCA Form
2. Pareto Chart
3. 5 Whys
4. Fishbone Diagram
5. Countermeasure and Ranking
6. Implementation Plan
7. Follow Up
8. Future Actions

Activity

Supervisor or manager define a present day problem in a given area or department. Teams are composed of cross-functional representation and should be smaller in size (4-5 people) to encourage participation by all. Both teams work on the same problem and report out during the session. The exercise is focused only on the PLAN quadrant. DO is take place afterwards based upon authorization to proceed. Question and answer period by each team for clarifying issues and plans for resolution. Teams may work on unique issues as defined by management related to urgency of resolution.

Course Timing

This classroom presentation session generally should be completed in 2 to 2.5 hours, depending upon class participation. Activity is optional, but adds to the understanding of the PDCA methodology and its intended deployment in the work area for problem resolution. Teams will be required to go the shop floor to obtain evidence and or clarify a planned action. Estimated time for team activity is 2 hours to complete form and investigate proposals.

Materials

Overhead projector
Slide Show Presentation
PDCA Form
Pencils
White Board/ Markers
Flip charts

Participants (8-10)

Operators
Manufacturing Engineer
Quality Engineer
Support staff (Administrative)
Manager/supervisor
Cross-functional team

Milestones

Pre-Requisite Class – Standardized Work
Introduction to structured problem solving.

DO List – from class generated PDCA Form (as assigned to area)
Team Leader or Supervisor checks status of all Implementation Tasks and encourages team to stay on schedule to complete according to plan.

CHECK – 3 Months of Data Collection
Team Leader or Supervisor reviews status of implemented actions to determine if problem reoccurred and is truly resolved standardize the new method or be prepared to address different countermeasures.