

Two Types of Problem-Solving Models

There are two kinds of models for conducting enterprise-wide or company-specific problem-solving methods.

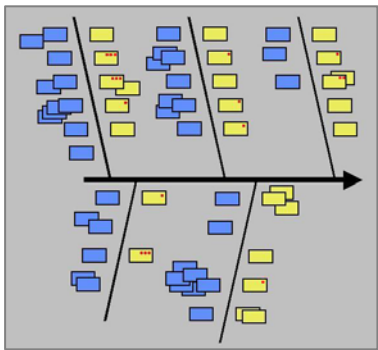
In the first model, the company's management is charged with identifying the problems of the company, and the management or its consultants apply the solutions to that problem. The only remaining problem is: how to train the workers to do what they don't know how to do?

The second model is more participatory than the former model. In this model, workers are trained to find, identify, and quantify problems. The workforce helps devise cost-effective solutions to the problems they uncover and, in the process, develop critical-thinking and problem-solving skills.

The Participative Model & CEDAC

Are you looking for a participative problem-solving methodology to:

- Identify root causes of production-related quality and related process problems?
- Engage the workforce in helping to identify these problems and propose effective counter-measures?
- Capture the expertise of highly experienced personnel in a manner that produces standardized methods and consistent practices that less-experienced personnel can follow?



CEDAC Board 1

One mechanism that can help accomplish these needs is CEDAC – Cause & Effect Diagram with the Addition of Cards. The purpose of the CEDAC system is to reduce the number of manufacturing defects through continuous improvements by enabling people to make use of their accumulated knowledge and experience. The system is a tool to register and overcome defects, shortcomings, problems, and suggestions found in production by involving the employees in solving the problems.

CEDAC distinguishes itself in the broad array of problem-solving methods in that it is a participatory problem-solving tool, rather than a delegated problem-solving method. CEDAC may certainly be the most appropriate tool to bridge some of the performance, communication, and quality gaps a company is experiencing.

Welcome to CEDAC Learning

**Cause-and-Effect Diagram
with the Addition of Cards**



Nashville TN www.performancetechnology.com

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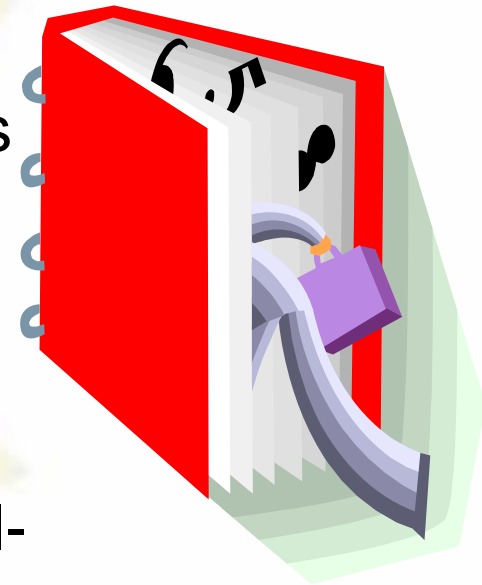
Purpose of CEDAC

- Provide a tool for continuous systematic improvement.
- To help identify causes of specific problems and to identify, test, and institute process improvements.



History of CEDAC

- Developed in the mid-1970's by Dr. Ryuji Fukuda for Sumitomo Electric.
- From 1976-1979, 350 CEDAC projects were initiated by Sumitomo Electric; results exceeded all expectations.
- Used today by numerous companies, including Weyerhaeuser, Pratt & Whitney, Allied Signal, Timken, Newell-Rubbermaid, GM of Canada, & many other companies worldwide.



Acknowledgments

- Content of this course is based on the book: *CEDAC: A Tool for Continuous Systematic Improvement*, published by Productivity Press, Portland, Oregon.
- CEDAC® is a registered trademark of Productivity, Inc. We are using the term CEDAC as an acronym for Dr. Fuduka's "cause-and-effect diagram with the addition of cards" methodology as described in the book.

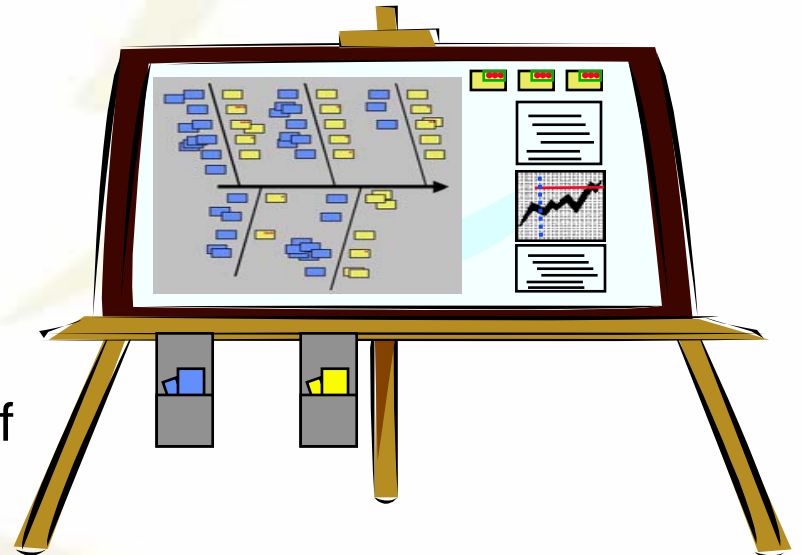
Why Are We Doing This?

- To provide you with a tool for identifying and solving problems.
- To teach you the skills required to implement the CEDAC method.
- To initiate a team-based, systematic problem-solving approach for the company.



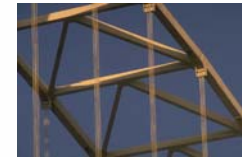
What Will You Learn to Do?

- Define the following terms used in the CEDAC method:
 - CAUSE vs. EFFECT
 - PROBLEM-EFFECT STATEMENT
 - TARGET-EFFECT STATEMENT
 - FACT STATEMENT
 - IMPROVEMENT STATEMENT
- Identify the components (sections) of the CEDAC board.
- Write PROBLEM-EFFECT & TARGET-EFFECT statements.
- Write FACT and IMPROVEMENT statements.



An Overview of CEDAC

- CEDAC is short for “Cause-and-Effect Diagram with the Addition of Cards.”
- Helps you systematically collect, analyze, and integrate information on quality and productivity problems.
- Brings problem-solving to the "front lines," involving employees and management.



Overview of CEDAC (cont'd)

- Can be applied to a variety of situations:
 - Product quality; returns and allowances
 - Customer complaints
 - Design problems
 - Rework
 - Poor communications
 - Setup problems
 - Downtime problems



SAMPLE CEDAC BOARD

