# EFFECTIVE FLUX
mai bine cu fiecare pas

Problem Solving through PDCA, 8D or Six Sigma?

Problems are seen in everyday life as a real pain and something to be avoided by fair means or foul. In business, problems can lead to low productivity, poor quality, high costs and ultimately loss of customers if the problems are not dealt with rapidity and totally prevented reappearance.

When referring to methodologies for solving problems and not to the tools themselves, here are the most common methods for solving problems: PDCA, Six Sigma (DMAIC), 8D.
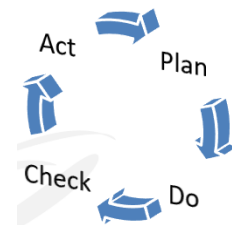
PDCA is a methodology of solving problems through Plan (Planning) - Do (Execute, Deploy) - Check (Verify) - Act (take Action). Six Sigma is a data-driven systematic approach methodology DMAIC - Define, Measure, Analyze, Improve, Control to improve an existing process and 8D is a methodology for solving problems in 8 steps (8 Disciplines).

PDCA is used for problems that have low complexity and involved many employees. In 8D fewer people are involved and the complexity of the problem is medium. In Six Sigma, due to complexity of the tools used (statistics) and data collection, hypothesis demonstration, are involved more fewer people, generally specialists and top management. 8D is used in many organizations only to solve problems created by claims - quickly and efficiently.

Using Six Sigma results are not immediate because the method is laborious (a project can be finalized in 4-5 months) but if the Control phase is well implemented savings are very high. In general, the steps are almost similar for the three methodologies but 8D have in addition a step for the development of interim safety measures, what other methodologies for solving problems not have.
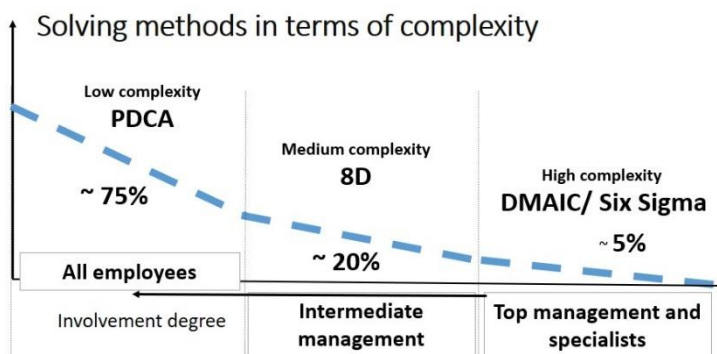
8D focuses on variation due to special causes while 6 Sigma is used especially for the common cause variation. Six Sigma focuses on improving an existing process by reducing variation (improving capability) while the other two are just ways of solving problems

All methodologies use tools like 5 Why, Ishikawa or Fishbone, Brainstorming, Pareto but Six Sigma use also more complex tools such as hypothesis testing, (DOE) Design of Experiment, ANOVA and software such as Minitab or Q-DAS for statistical processing of data.
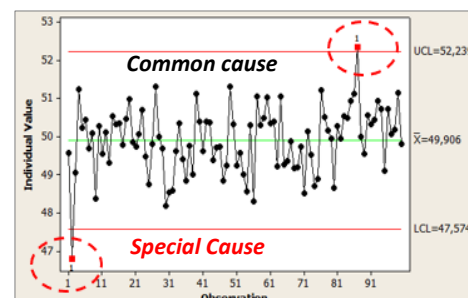
We invite you to trainings organized by Effective Flux to discover the advantages of using PDCA, 8D or Six Sigma in problem solving.