METHOD-FOCUS OR PROBLEM-FOCUS

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SUMMARY

Defining the focus in actual problem situations truly tests our ability to apply problem-solving methods efficiently, effectively, and with efficacy. A problem focus helps us to understand what needs to be changed, what the change will bring about, and the best way to create the ideal solution. On the other hand, focusing on a specific set of problem solving methods simply creates bias in favor of the methods learned as if they form a complete process of resolving all situations. Some key problem solving techniques are presented with an enlightening look at some of the pitfalls organizations fall into by focusing merely on methods, and not the actual problem.

KEY WORDS

Problem solving

INTRODUCTION

When problems are viewed as unacceptable output conditions, we find a host of statistical tools that can be applied to resolve such conditions. From a broad perspective, quality can be defined as the condition of output. For any output of interest, we can use statistical methods to determine its condition. There are basically three conditions that can be considered as sub-problems: 1) instability, 2) variation, and 3) off-target. When a real problem is being solved, appropriate statistical methods are brought into play in the appropriate sequence to resolve these conditions. The center of attention is always the actual problem to be resolved or a situation that need to be dealt with. Figure 1 illustrates this point. The problem-focus approach is a continuous reality check both for the applicability of the statistical methods and the expertise of trainers/advisers. As soon as we focus on the problem situation at hand, everything we learned and wish to apply should be arranged in the most appropriate sequence.

The core steps for solving a complex situation can be summarized into three steps: 1) What is the output problem condition? 2) What input variables are connected with this output condition and in what manner? 3) What affordable actions can be taken to either eliminate, control, or counter the critical input variables? In action words, these three core steps can be described as 1) Chart, 2) Solve, and 3) Implement as shown in Figure 2. Together, they form the heart of the matter.

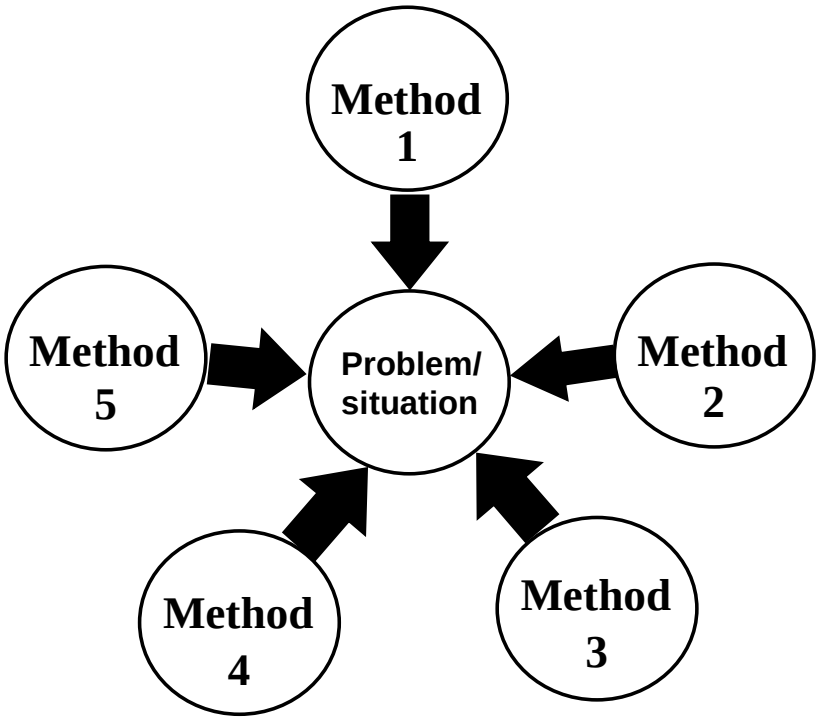

Figure 1 – Problem-focus

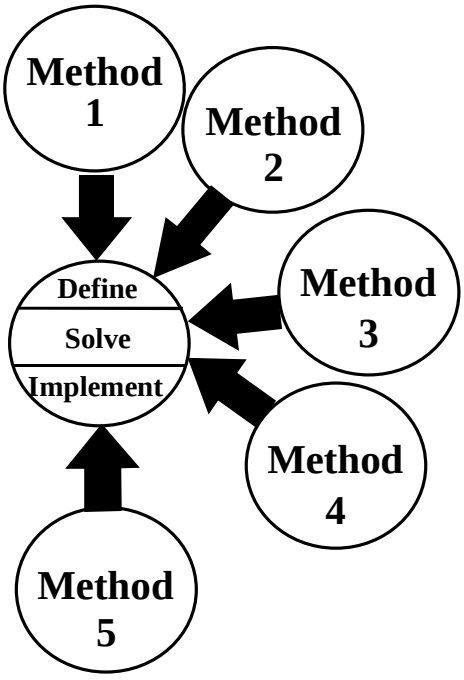

Figure 2 – Three Core Problem Solving Steps: Chart, Solve, and Implement

Industry most commonly uses the method-focus during problem solving. Learning a method is like learning to use a tool such as a hammer. As the popular saying goes, "When you are holding a hammer in your hand, everything begins to look like a nail." Figure 3 illustrates the method-focus. It is possible to master a method without ever solving a real problem. Most of us know that there are many tools in the toolbox besides the hammer. A collection of tools and learning about them is not a substitute for solving a real-life problem. Method-focus is based on the simplistic assumption that mastery of a tool or technique is a prerequisite for its application. In actual experience, mastering problem solving tools is not necessarily a prerequisite nor is it a guarantee for success.

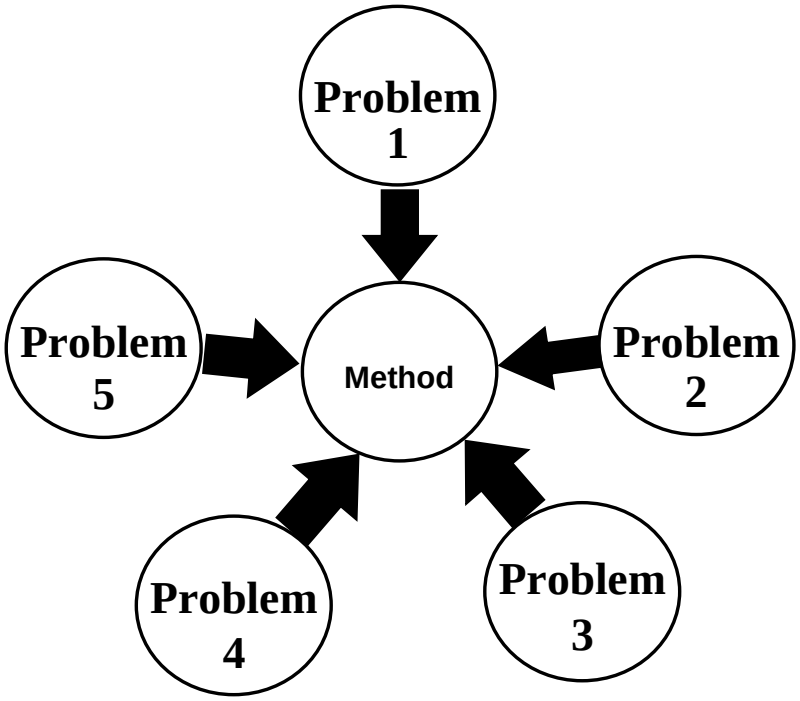

Figure 3 – Method-focus

We explore problem-focus versus method-focus techniques by using examples associated with three methods: 1) Pareto charting method and incidents per unit charting method, 2) Contingency table analysis method, and 3) Design of experiments.

EFFICACY OF THE PROBLEM-FOCUS APPROACH

The problem-focus approach has the power to resolve problems, which is unachievable by the method-focus approach. The following are distinct differences:

1) Problem-focus is learned by real problems in the foreground as well as the background. Method-focus can only illustrate an imaginary situation.
2) Problem-focus tests the expertise of trainers. Methods can be taught without any experience in solving real problems.
3) Problem-focus forces users to think about the appropriate sequence in which methods are brought into play. Learning about methods rarely brings into the discussion the sequence in which they are used.

4) Problem-focus measures success in terms of how many actual problems have been resolved. Method-focus measures success in terms of how many people have been trained.
5) Problem-focus employs an inductive approach to learning. Method-focus uses the deductive approach.
6) Problem-focus makes one think in terms of combining methods to solve problems. Method-focus learning appears as distinct processes.

CONCLUDING REMARKS

It is apparent that industries continuously face the challenge of solving complex problems. Currently the most popular notion is that we must learn and master the problem-solving methods. We have labeled this approach as method-focus. We described several disadvantages of the method-focus approach. Three of the most helpful methods in problem solving were used to illustrate this point: 1) Pareto and incidents per unit charting, 2) Contingency table analysis, and 3) Design of experiments. We argued in favor of using the problem-focus approach. The problem-focus approach provides a continuous challenge to management, to learners, and to trainers. Ultimately such a challenge results in successful solutions.

Our need to solve problems is real. The call for a method-focus approach to achieve successful solutions is arguable. We think the problem-focus mode has the ability to deal with real situations. Which question would you rather answer: How many problems have been resolved or how many people have been trained? Problem-focus can answer the first question, while method-focus can only address the latter.