TECHNICAL AIDS

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How to Form and Inform a Quality Improvement Team

FOLLOWING are two actual letters and some material to be used as a transparency. They have bearing on (1) persuading people to join a quality team, (2) recognizing the meaning of "quality improvement," and (3) driving home the meaning of statistical control in the context of process improvement.

Letter No. 1

Dear X,

This is in response to your asking for ideas on forming a team to review certain quality problems. You said that each person you approached claimed to have no problem that required solving by such a team as you described.

Consider going back to each person and emphasizing that it was the president who suggested that processes could be improved if more were known about such factors as the correlation between raw material specifications and product characteristics. Remind them that you have been charged with the task of forming such a team.

Now emphasize that you are asking this person to join this team not because he has problems to solve, but rather because he does not! It is his experience in avoiding such difficulties that is exactly what the team needs. It is this kind of background that is needed to make the operation successful.

Approach each potential team member with this combination of flattery and presidential expectation, and you should have no difficulty in filling out the team. If later it turns out that almost everyone has problems of one sort or another—well, how were you to know? And isn't everybody glad that this project was undertaken!

I am enclosing a copy of a letter I wrote to Y following an operation review. It may contain some ideas of interest to you.

Best regards,

Letter No. 2

Dear Y,

You did a fine job of presenting your activities in the recent operations review. Here are a few ideas that I believe are relevant to your operation. I decided to present them via this letter rather than taking the time during the review.

You are certainly right in emphasizing that the Deming philosophy is vastly more than statistical process control. SPC is a specific tool in a fairly large collection.

The president recently raised the question as to why, despite lots of activity, the yield of one of our lines has remained essentially constant and unacceptably low over the past six months. This brings to mind Deming's point number 5: "improve constantly and forever every process for planning, production, and service." But point number 5, in keeping with all of the 14 points, does not specify "how to."

I believe that I have identified the ingredient that is missing in that division (and, sorry to say, in almost everywhere else in the company). It first consists of recognizing that "constant improvement" is a general term that has two quite different meanings. On the one hand it refers to quantum leaps;

FIVE IDEAS ON

IMPROVEMENT OF A PROCESS

1. THE OBJECTIVE: CONTINUOUS IMPROVEMENT OF THE PROCESS
2. GETTING A PROCESS IN STATISTICAL CONTROL IS NOT IMPROVEMENT (THOUGH IT MAY BE THOUGHT OF AS IMPROVEMENT OF THE OPERATION)
3. GETTING A PROCESS IN STATISTICAL CONTROL ONLY REVEALS THE PROCESS
4. AFTER A PROCESS IS IN STATISTICAL CONTROL, IMPROVING IT CAN BEGIN
5. A PROCESS IN STATISTICAL CONTROL IS NOT ANALOGOUS TO A WILD ANIMAL ON A LEASH

THE ANALOGY IS:

WILD ANIMAL → TAME ANIMAL → TRAINED ANIMAL
ORIGINAL PROCESS → CONTROLLED PROCESS → IMPROVED PROCESS

FIGURE 1. For an Overhead Transparency Dealing With Process Improvement.

that is, significant process changes that give significant improvements. On the other hand it also refers to incremental improvements that produce small but cumulative increases in yield and productivity, and small but cumulative decreases in process variation, waste, etc. It is this second meaning that goes unrecognized and unattended to.

Most people feel that once a process has been put in statistical control, work should proceed at once to innovate – to find large changes that will substantially improve it immediately. As the enclosed item, called "Five Ideas on Improvement of a Process," indicates, getting a process in control is the starting point for making small incremental improvements that will raise the yield frequently by ten or more percentage points over six months.

No organization can afford to overlook the contrast described in the previous paragraph. Of course, quantum-leap work should not be abandoned. It may very well happen that the incremental improvement efforts will provide critical suggestions for innovation.

The second part of the "missing ingredient" is that even if everyone recognizes and agrees that the pursuit of incremental improvements is important, no progress will be made unless people are specifically organized to do it. A group must be organized with the specific charge to discover and implement improvements to a process. The fact that this will not happen spontaneously is not only clear from experience but, theoretically, is a direct consequence of the Second Law of Thermodynamics (a system will tend toward chaos unless work is purposefully supplied to it).

My hope is that, in future operation reviews, the president will be asking all sectors of the company the question: how are you organized to generate specific incremental improvements in your processes?

Best regards,

Figure 1 is intended to remind people of the purpose of statistical control.

Key Words: *Case Study*.