A Simplified Approach to Solving Problems

By James Shearer

In today's highly competitive business climate, what leader wouldn't want a simple but effective approach to solving problems in his/her toolbox? Fortunately, a disciplined but simplified approach does exist that can help to quickly and permanently solve business problems. The approach, outlined in this document, will give the general manager or business leader a 9-step checklist to help ensure timely and effective solutions are developed and implemented.

It is a fact of business life that even the best management teams are constantly faced with problems (sometimes referred to as "opportunities"). When problems are of a serious nature they must be quickly addressed to keep the enterprise moving forward. The following approach can provide a straightforward, simplified method to help accomplish quick resolutions to difficult issues.

The nine elements of this approach include:
1. An appropriate sense of urgency to solve the problem
2. Approaching the problem objectively, analytically, and with an open mind, without any preconceived solutions,
3. Effective utilization of appropriate, available resources (specifically and especially people)
4. Clearly defining the problem
5. Identifying the root cause
6. Identifying, if they exist, underlying contributing causes
7. Developing corrective actions
8. Implementing corrective actions
9. Verifying that the fix truly solves the problem once-and-for-all!

The importance of element nine, verifying, cannot be overemphasized! If the fix does not truly solve the problem, only a temporary band aid has been applied. The problem will almost certainly resurface, perhaps at the worst possible time, and will have to be dealt with yet again. Few organizations can afford the luxury of spending valuable time and money to address the same problems over and over again.

1. Urgency. There must be a sense of time urgency to solve any problem having a potentially serious, negative impact on business. Such a problem cannot be put on the backburner, where it will fester and continue to negatively affect the success of the enterprise. Once there is recognition that a serious problem exists, any person who recognizes it should issue a call-to-arms. Company employees must feel entirely comfortable in identifying problems and notifying the organization of their existence.

The business leader must create, promote, and fully embrace a culture in the organization that (a) treats all problems as potentially hazardous to the health of the business until

proven otherwise and (b) recognizes and rewards, if only with a heartfelt "thank you," those who bring problems to light (a.k.a., "don't shoot the messenger").

2. <u>Objectivity</u>. The solutions to problems are not always the most obvious or easy ones that come to mind. Individuals helping to solve problems will come to the problem-solving table with experiences and biases. While the experiences can be invaluable, the biases can be detrimental.

The leader must create an environment that ensures open minds and the availability of accurate information and data. This must occur to properly and objectively analyze the true nature of the problem. During the actual problem solving session, the leader must insist that participants objectively and fairly consider all input, ideas, and suggestions. If ideas and the people who generate them are criticized, the process will shut down and momentum, energy, and creative input from potential problem solvers will be lost.

3. <u>Resource Utilization</u>. Employees and other stakeholders involved in the running of the business have accumulated significant knowledge and expertise through their collective experiences. What better way to harness this collective know how and brainpower than to have talented individuals on the problem solving team? The nature of the problem should dictate to a certain degree the number and types of individuals that are recruited for the team.

However, while on the surface it might not make sense to have an accountant or an HR person on a problem solving team addressing an engineering/design problem, it might be a significant plus to do so. An out-of-box or non-traditional viewpoint offered from someone not close to the problem and not having pre-conceived ideas about the solution could just be the trigger that gets the team on the right track. By having a cross-functional team, the leader can increase the likelihood of avoiding the "can't see the forest because of the trees" syndrome.

4. <u>Problem Definition</u>. The most critical step in truly solving a problem once-and-for-all is to get agreement on what the problem really is – to define for all participants the exact nature of the problem. It may or may not be easy to agree on the definition. Ask five different people exposed to the same information or data (people possibly from five different work disciplines or at least having five different sets of experiences) what the problem definition is and there might well be five different answers.

This step may require time, interaction, and significant discussion. It is worth spending whatever amount of time is necessary to achieve this agreement. It is not unlike jury deliberations – proper consideration must be given to all known information (or evidence) as well as the brainpower and experiences of the participants before a verdict on the problem definition can be rendered.

It is once again the leader's role to ensure adequate discussion and interaction occurs until agreement is reached. The importance of this step cannot be overstated – it is absolutely imperative that the team agree on the definition of the problem. Once

tentative agreement is reached, the definition should be put on a whiteboard or easel so it can be challenged, one final time, by the individual team members and the team as a whole to ensure it is valid. When final agreement is achieved, the definition should remain on the whiteboard or easel to be visually present in all further discussions.

5. <u>Root Cause</u>. Sometimes this step is obvious but not always. Especially in technical problems, it may be an unusual set of conditions, acting in concert, that cause a failure (problem). The root cause is clearly identified when the following two questions can be answered in the affirmative:

   (1.) Does (state the root cause) fully explain why the problem exists under all realistically conceivable conditions?

   (2.) If the root cause is corrected (or eliminated), will the problem be permanently fixed, never to return?

Determining the root cause may be far easier said than done. Once again, this is where the power of an assembled team can generate multiple ideas, theories, suggestions, etc., (including some "outside the box") on what might be the root cause. As before, it is the leader's responsibility to ensure all participants feel free to offer input without fear of rebuke or ostracism. Once a list of potential root causes has been identified, the team can challenge the list by asking the two questions above and discussing at length, if necessary, the strengths and or weaknesses of the individual items on the list. When the team is satisfied that a single cause meets the criteria it should proceed to the next step.

6. <u>Underlying Causes</u>. An underlying cause is a condition that contributes to the problem but, alone, is not the entire cause of the problem. Depending on the problem itself, there may or may not be underlying causes. If one or more underlying causes exist, the agreed-upon "root cause" will help point the team in the right direction to identify these underlying causes. The following simple example can help clarify:

   <u>Problem Definition</u> – consistently poor delivery performance of a manufactured product line to the customers

   <u>Root Cause</u> – the company does not produce the right quantity of the right products at the right time to meet the customer demand schedule.

   <u>Underlying Causes</u> –
   - (a) inaccurate sales forecast
   - (b) poor production equipment utilization
   - (c) inadequate production capacity
   - (d) poor productivity
   - (e) poor schedule adherence
   - (f) low first pass quality yield
   - (g) poor production methods
   - (h) unscheduled equipment breakdowns
   - (i) weak preventive maintenance / repair capabilities
   - (j) high employee turnover
   - (k) production employee absenteeism

By no means are the listed underlying causes the only ones that might contribute. This list is meant only to serve as an illustration of a root cause and some possible underlying causes for a defined problem.

The leader must again assume responsibility for using the collective experience and knowledge of the team to generate an all-encompassing list of possible underlying causes. The team, through discussion, must then objectively determine whether or not the individual items should remain on the list.

7. <u>Developing Corrective Actions</u>. The team is now ready to develop corrective actions that will fix any underlying causes and, ultimately, the root cause itself. For each cause, the team must develop specific corrective actions (tasks / action items that must be accomplished) that will improve or fix the condition, or eliminate the cause completely.

Using the above example, the corrective actions to address an "inaccurate sales forecast" may include a new process to involve the customers themselves in generating the forecast, providing incentives to the sales or marketing personnel for improved forecast accuracy, and using sophisticated software to tweak historical sales data.

 To address "low first pass quality yield" the corrective actions might include establishing quality acceptance criteria for each step in the process, providing improved inspection tools, increasing operator training on the processes and the need for improved quality, and improved processes and process documentation (set-ups, feeds, speeds, pressures, temperatures, jigs, fixtures, etc., etc.).

The team must proceed through the entire list of contributory causes and the root cause to ensure every item that helped create the problem has been addressed with appropriate corrective actions that will improve the condition or eliminate the cause.

8. <u>Implementing Corrective Actions</u>. The process of properly implementing corrective actions can be a major undertaking but it is nothing more than classic project management. The team must work together to assign specific individual responsibility, with due dates (and, if necessary, budgets) for every single action item in the plan. It is critical to get the commitment of those being assigned each specific task that they will complete the task on-time and at-or-below budget.

Suffice it to say that the leader must ensure that the action plan itself is fully documented and distributed in a timely way to the team members. He/she must schedule periodic follow up meetings to ensure that the action items are on track for successful completion on schedule and within budget. If it is determined that schedules are slipping, the leader must determine how to get back on-track and whether or not to adjust the schedules. He/she must also be prepared to hold people fully accountable for the commitments they made to accomplish their assigned tasks. As stated above, this step is nothing more than good project management.

9. <u>Verifying the Fix(es)</u>. This is the last step but it is critically important. Many times the individual or team will stop after Step 8, thinking that the problem solving task has been successfully completed. However, only when the team has verified, by whatever means they have at their disposal, that the problem has been solved once-and-for-all, is the task truly complete.

Using the above example again, the verification might require that an entire "busy season" occur under the newly implemented fixes without a recurrence of poor delivery to satisfy the verification requirement. On the other hand, specific daily or weekly measures of downtime, schedule adherence, absenteeism, first pass quality yields, etc., etc. might give an indirect verification. The leader and team should determine ahead of time what criteria they will use to decide if the expectations have been met.

<u>Summary</u>. Using a simple 9-step checklist can provide a powerful yet straightforward approach to solving complex, potentially fatal problems in a business enterprise. When the organization has successfully utilized the approach a few times, the behaviors and newfound skills will begin to become ingrained in all problem solving efforts. This can result in much quicker and far more effective solutions to the myriad of problems facing businesses in today's competitive world.