

Collaborative Efforts in Organizational Change

The flattening of organizational structure requires individuals to broaden their problem solving skills and improve their collaborative efforts. To increase their rate of success, organizations need an effective, consistent approach in these efforts. Incorporating this approach into your organization's daily operations will help you realize the full potential of your resources. Larry & Karen

The Symphony of Collaborative Problem Solving© (Evenson 2009)

When I facilitate a problem-solving group, I compare it to conducting a symphonic orchestra. Okay, that may be a stretch. I admit that I have never conducted an orchestra. However, an orchestra is composed of various instrumental sections working in unison to perform successfully a piece of music.

And just like a maestro, I am striving to create balance, harmony, and a successful result. The components that I am orchestrating in collaborative problem solving are: *the A-I theory, strategic questions, a process model for problem solving, and the appropriate tools/techniques*. When properly blended, they help address both Problem A and Problem B (Kirton, 2003).

Problem A is the “problem” that you are trying to solve. Problem B is any problem arising that impedes the group’s progress on Problem A. It is often personal issues of a person or sub-group, unrelated to Problem A but having an affect on its progress (e.g., arguments on “general” equality; the insecurity of the boss and to the restriction on questions relating to the boss-stated problem). The other kind of Problem B could be a general rule that again, is unrelated directly to this particular Problem A that happens to impede its progress.

It’s time to look at the components of problem solving. Sit back, the symphony is about to begin.

Let’s start with the *A-I theory*. Administering the KAI to intact group members and then sharing and discussing the results helps the group understand their style differences and preferred methods of problem solving. Administering the inventory may not always be possible in every group setting, so at a minimum I explain the A-I theory.

The Adaption-Innovation Theory deals with differences in thinking style. The style differences are on a normally distributed continuum ranging from high adaption to high innovation. People who are more adaptive prefer problems that are associated with more structure and that the structure is consensually agreed upon. They strive at providing solutions that are “better” rather than different. Those who are more innovative prefer solving problems with less structure detaching the problem from the way it is customarily seen and producing solutions that are seen as “different”. The contrast in creativity styles produce distinctive patterns of behavior.

I then communicate using job/company specific examples and demonstrate the benefits and value of both approaches in collaborative problem solving. This discussion of diversity and how teams can better work together is a preemptive way to deal with Problem B.

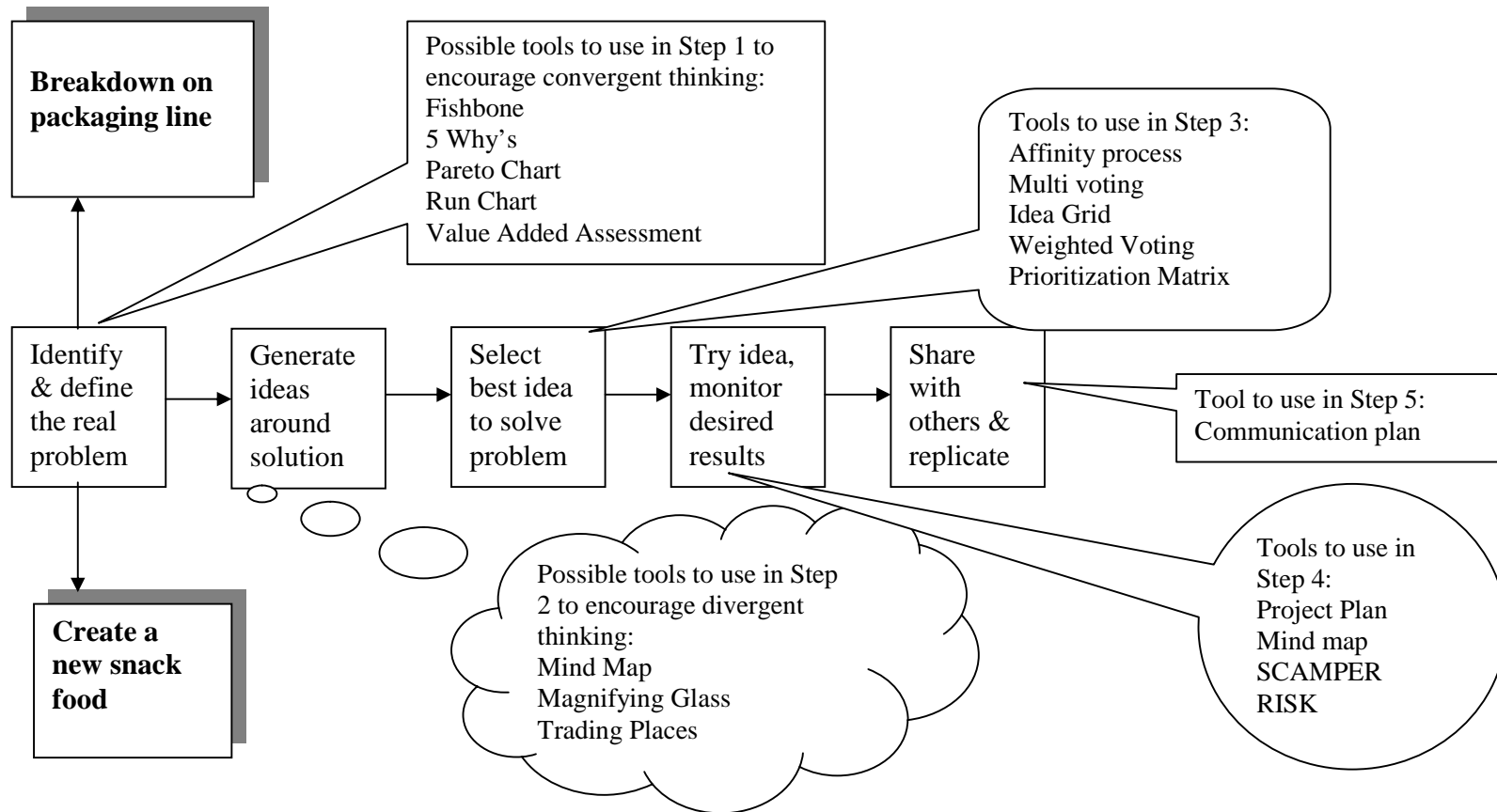
The second component in this symphony is *strategic questions*. I understand that finding long-lasting solutions requires constant questioning. However it isn't just *constant* questioning. It is also the quality and type of question. I recognize that there is a strong linkage between types of questions and the *A-I theory*. Our method of questioning can either be more adaptive (e.g., what is the least costly way to fix this?) or innovative (e.g., what if we started from scratch and redid the entire thing?). This is not to imply that adaptation is always shortsighted and fast or that innovation is always far-sighted and time consuming. While both may be appropriate and have positive outcomes, using just one questioning approach may create problems sometimes by missing them. Throughout this article I have included examples of effective questions to be asked at the appropriate time.

The third component of effective problem solving is a *proven process for problem solving*. Figure A is a five-step problem-solving model that I have used successfully with international companies across diverse industries. An explanation of each step with appropriate strategic questions and A-I linkage is given.

Finally, *a toolbox of techniques to enhance the problem solving process is essential*. Creativity techniques (e.g., brainstorming, synectics) and management tools (e.g., Taguchi concepts, Pareto analysis, fishbone diagrams) enhance (usually in groups) either innovative or adaptive styles of problem solving. "Don't pick the technique you fancy, use the one needed to crack the problem." (Kirton, 2003). In my experience, when the proper tool is used, even a very diverse group is able to focus on the task at hand not on the approach of the participants. Therefore, there are not two tool boxes – one for adaptors and one for innovators. A brief list of suggested techniques is included in each step.

Figure A

If the problem is about the current system and its improvement, consistency of output or efficiency, then a more adaptive answer may be sought. To assist in reaching that answer, use the proper tools.



If the problem is seeking new and different solutions that may be outside the current paradigm, a more innovative answer may be sought. To assist in reaching that answer, use the proper tools.

Step one: Identify and Define the Problem

In problem definition there are two elements, the problem statement and the goal statement (Chang, 1993). The first element, *the problem statement*, is a brief statement that is based on reliable and valid data.

Adaptors tend to accept the problem as defined with any agreed constraints. They will define the problem more carefully and tightly, searching for relevant information and arranging the data in orderly ways. Innovators tend to reject the generally accepted perception of the problems and redefine them. They pay less attention to meticulous detail and thoroughness. Both adaptors and innovators must avoid the pitfalls of defining the problem too narrowly, too broadly or in a way that implies the cause or solution.

The second element of problem definition, *the goal statement*, tells the specific desired outcome with a timeframe (e.g. to reduce or to increase “X” by “%” in the “first quarter” or “by June 5th”). This structured element is necessary for monitoring success of the solution.

Once the problem is defined, additional data should be collected and the problem definition refined if necessary. Analysis of data continues the true root cause is determined.

Questions to ask:

1. *What is the actual reason for improvement or the new opportunity?*
2. *What is the desired end result?*
3. *What are the criteria for meeting that end result?*
4. *What needs to remain intact, be eliminated, or improved?*
5. *What is the root cause of the problem?*

Tools to use:

- Data Check Sheet
- Customer Map
- Histogram
- Run Chart
- Flow Chart
- Value Added Assessment
- Fishbone diagram
- 5 Why's
- Pareto analysis

Step Two: Generate Ideas Around Solution

The problem is properly defined. Additional data has been gathered and the root cause has been determined. The next step is to begin generating ideas around the solution. However, before generating ideas, it is critical to understand the **type** of problem that is being solved. Ask the following questions:

1. Are we sure that the answer lies within the present “system” or does it lie elsewhere?
2. Does the problem (based on data); need a structured immediate solution that conforms to the existing system with limited risk? Is there a clearly defined end-result? (In other words, is

it more Adaptive in nature?). *An example of this may be a breakdown in a piece of equipment at a manufacturing plant. To continue for this type, refer to questions 1-3.*

3. Is the problem (again based on data), one that lends itself to trade off the benefits of the immediate “fix” and take a more innovative cross-boundary view that may require more risk for long-term gains? Is it a problem that has a less defined end result? (Or in other words, is it more Innovative in nature?) *An example of this may be to create a new product that meets the tastes or desires of the current demographics in the marketplace. To continue for this type, refer to questions 4-6.*

Caution: don’t jump to the conclusion that to reach solution you will need a strictly adaptive approach to problem solving or a purely innovative approach. Complex problems are diverse within themselves. The need to be more adaptive or more innovative may not always be apparent, but a combination of the two may be needed more often than expected, especially by teams whose members tend to have a similar style.

When generating ideas, remember that adaptors may prefer to generate a few novel, relevant and acceptable ideas. This may be all that is needed. Innovators may generate ideas across boundaries and breaking the odd rule, custom, key theory or even a paradigm. Yet this might be what is needed. So, during idea generation, precautions must be taken to stop killer phrases (e.g., “that will never work; yes, but...”). Step Two is not the time to judge ideas. It is the time to generate ideas. And to realize that both adaptive and innovative people produce highly creative ideas.

Questions to ask:

1. How did we fix this the last time?
2. Why did that solution only work for a limited time?
3. What can we do this time that will give us long-lasting results?
4. How can we improve the current process, product etc?
5. What new or different approach could be used or product developed?
6. Do we improve or change or even improve, change and then improve again, in a successive development?

Tools to use:

- Brainstorming
- Forced Association
- Magnifying Glass
- Trading Places
- Idea Box

Step Three: Select the Best Idea to Solve the Problem

The ideas that are generated in Step Two must now be evaluated and the best one should be selected. First organize the ideas by themes, functions, concepts etc. Then begin reducing the number of ideas by convergent thinking tools. A series of phases are used – organize ideas, multi vote based on criteria, further reduce by using an idea grid, then weighted voting and/or a prioritization matrix.

Adaptors may feel more comfortable in this phase. The tools generally are more structured and result in a reduction of ideas. Innovators may have problems in choosing among the ideas

they generated and picking one that will pay off. The more adaptive need more proof that a suggested innovation might work, but when converted settle down to make sure it works!

Questions:

1. What are the criteria to reach the end result? Refer to Step One.
2. What tool(s) should we use to make the decision?
3. What is the risk that is involved if the new solution is implemented? *

Tools to use:

- Affinity process
- Dot Voting (multivoting)
- Idea Grid
- Weighted Voting
- Prioritization Matrix

Step Four: Implement Solution and Monitor for Results

Okay, it's time to try the solution. This step requires a detailed implementation or project plan. These plans must include all the appropriate people, the steps to be completed, the project schedule including milestones, and resources that are necessary. The plan must be communicated to the stakeholders and process owners.

Adaptors may be very good at creating and monitoring these project plans. However, their belief that the current paradigm may be made to work when it is in question may create problems if the plan is derailed by an unanticipated constraint (e.g., a crucial piece of equipment is unavailable at the scheduled time of delivery). Enter the innovators who are essential in times of crisis.

Innovators may be able to create the "big picture", that is outside the current custom theory or paradigm with complex components in the plan. However, they may struggle more with follow through on the monitoring of details. They may also decide not to stick to the plan! Enter the Adaptors who are essential for ongoing functions and smooth implementation to reach high efficiency.

Success? Failure? Either way some more questions must be asked.

Questions:

1. Why is it successful?
2. What have we learned?
3. How are we going to continue to monitor?
4. Why did it fail?
5. What criteria didn't get met?
6. What have we learned?
7. What else can we use this for?
8. How can it be modified or adapted?
9. What could be substituted (e.g. materials)?
10. What components can be combined to make it work?

Tools to use:

- Implementation or Project Plan
- Mind Map
- SCAMPER
- RISK formula

Whether the solution is more adaptive or more innovative, the person generating the idea should be able to sell his/her idea. It is far easier to influence people by demonstrating how to minimize and manage RISK (Evenson 2003)

This simple formula can also be used when coaching people to make better decisions. If an idea is presented, ask the following questions if the presenter hasn't already given the information. Of course, the appropriate questions are included.

R – stands for return on investment (Does the idea/solution meet the hurdle rate for large projects? What are the benefits of this solution? Do the benefits outweigh the cost?)

I – stands for impact (What is the impact? Who will be impacted? When will they be impacted? How will they be impacted? Will the impact(s) be short-term or long-term? Is the impact positive or negative?)

S – stands for standards (Does this solution meet or exceed the standards around quality, efficiency, safety, legal requirements or whatever standards are to be met?)

K – stands for knowledge (Do we have the internal knowledge to implement this solution? Do we need to go external to the company or department? Who is the external?)

Step Five: Share results with others and replicate the success

Step Five requires a communication plan that cascades across the company. A process should be in place. If it is not, then create one!

One of the biggest failures in many organizations is the failure to communicate results so that other groups can use, adapt, or regroup the solution for similar success. I have seen different divisions of an organization try to solve the same problem without realizing that their efforts were being duplicated elsewhere. Rather than work together and share the information and results, they work independently and waste valuable time money, and man-hours.

Adaptors and Innovators can be equally guilty of not communicating with the necessary people.

Questions:

1. Who needs to know this information?
2. What do they need to know?
3. When do they need to know the information?
4. How will the information be transferred?

Tools to use:

- Mind map
- Communication Plan
- Meetings
- Newsletters
- E-mails

This approach to collaborative problem solving is practical and applicable to any group. While it may appear to be limiting, it is at the same time enabling (Paradox of Structure, Kirton, 2003). When the A-I theory, strategic questions, the 5-step model and a variety of tools or techniques are integrated in such a fashion both Problems A and B are addressed. We accomplish the balance of efficiency and effectiveness. It's a beautiful thing. Just like a symphony. All right, I understand that is a stretch. And I will admit, no one has ever referred to me as Maestro!