

SYSTEMS SOLUTIONS VS. SIMPLISTIC PROBLEM-SOLVING

The Systems Thinking Approach®

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Traditional problem solving approaches are no longer adequate on many counts in our present fast, changing, complex world!

“A stitch in time saves nine.” “Look before you leap.” “A small hole can sink a big ship.” These proverbs may be aged-old but the saga of Arthur Andersen and their involvement with Enron only reiterates that they remain useful reminders even in our present times.

Arthur Andersen was one of the big five public accounting firms worldwide – a bluest of blue bloods - until it was rocked by the affair. Very few in their wildest imagination would not have thought that the action and malpractices of a small unit could lead to the downfall of such an established company!

In our competitive and demanding world, errors can be costly. Single wrong moves even destroy established companies. This is no exaggeration - Arthur Andersen did not have a second chance!

What then must we do to avoid such a dilemma when dealing with our problems?

Traditional problem solving approaches are no longer adequate on many counts in our present fast, changing, complex world! More importantly, they fail to recognize holistically the relationships a part of an organization has with all the other parts of the organization. Its actions and decisions impact and alter these interdependent relationships. Time and time again only the symptoms were dealt with – giving rise to unintended consequences and more related problems – as the root causes were not adequately addressed or removed.

This underlines the need for a more holistic integrated approach – one which would systemically bring about a lasting systems solution! The answer is our SYSTEMS THINKING APPROACH® to a SYSTEMS SOLUTION – Seven Steps to your organizational success! It promises to provide a comprehensive treatment to your problem with a proactive approach to help reduce or prevent your problems from recurring.

IDENTIFICATION OF THE PROBLEM:

When faced with a problem, issue or pain, many of us intuitively would react in the way we have been taught. We would first try to study the problem in order to understand it and try to define the issue at hand. This is

a good logical start as it puts focus on what needs to be done.

However, a bigger danger lurks within this approach. Many often have repeated the mistake of looking for clues at the wrong places and define their problems wrongly. Not only time, money and effort were wasted in resolving the wrong problem; more problems were created in the process. The ability to define the problem and not just the symptoms gave the misplaced confidence that the problem was obvious. Many defined their problems wrongly or too narrowly in terms of stakeholders, options and scope, leading to an over-simplistic conclusion that a singular approach (like downsizing, talent management, TQM, reengineering) would sufficiently resolve the organization's woes.

The reality is that this cannot be much further from the truth! The right way to resolve problems is to expand the scope, “think out of the box” and look first at the environment around you and choose the desired outcomes which best suit you.

Another challenge in problem solving is to be proactive. We seldom act on any real or potential problem, when we are satisfied with the adequacy of the present system in achieving some of the desired objectives. Problems and issues are ignored and at times stay undetected until things became too serious to be dismissed. This is the old “Boiled Frog” effect. Arthur Andersen simply recognized their problem much too late! Had Arthur Andersen paid more attention to the issues confronting the bigger business environment, including long-term issues with Core Values and ethics, they might have recognized the potential problems they would have to contend with. Tyco and WorldCom were alarm bells which were rung earlier. They had all the tell tale signs of the strain between maintaining or reporting profitability and holding ethical values and integrity.

Joachim Funke, summarized some typical characteristics of difficult problems as follows:

- Lack of clarity of the situation. Both the commencement and continuation of the problem may not be apparent
- Multiple goals which may be hard to define and are opposites.
- Complexity (large numbers of items, interrelations, and decisions) in terms of connectivity (hierarchy relationships, communication relation, allocation relation) and time considerations, which are unpredictable and/or temporal in terms of constraints, sensitivity and phases.

Each of these characteristics explains why sometimes problems defy identification or definition. We might have some gut feelings or some hazy notion that something is not right but we are unable to put our finger on what is wrong. Our Centre's Seven-Step, Systems Thinking Approach® will help you get a clearer picture on how to directly attack each of these characteristics. Each step would give you a better understanding of your problem and desired outcomes in order to trace the root causes to any complex and difficult problem. (See figures 1 and 2)

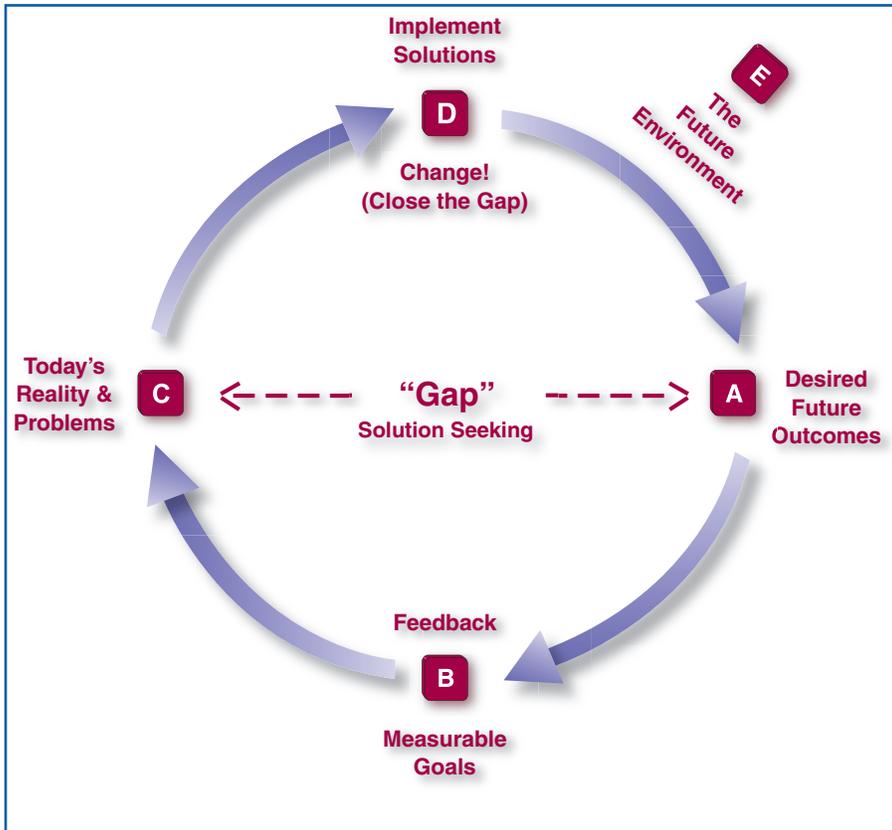
THE SEVEN INTEGRATED STEPS OF SOLUTION-SEEKING:

- Seven Steps to help you achieve your desired outcomes
- Seven Steps to stop you from going the wrong path
- Seven Steps to help you stay on the right path and focus on the right problems.

STEP 1. THE IDEAL DESIRED OUTCOMES: PHASE A:

The first step in Systems Thinking is to look backwards from the perspective of what you want to be in the future, what you want as the final outcomes when the problem is resolved. The ideal objectives or goals should be absolutely clear and agreed to by key stakeholders for it to provide the focus on what to do and the reason for doing it.

Systems Solutions vs. Simplistic Problem Solving



(Figure 1)

The desired outcomes must be developed first, giving you a sense of purpose and direction. Steven Covey called it “Begin with the end in mind”. We call it “Backwards Thinking” from the future to the present in order to go forward strategically and intelligently.

This visioning is important – it should be a Guiding Star, even an almost impossible dream. We can take a lesson from NASA. Its initial mission was to put man in the moon. After the mission was achieved, it floundered aimlessly for quite a while. It is thus important that the vision should be able to sustain us far into the future, beyond our immediate challenge.

PHASE E: THE ENVIRONMENT

We must not forget to set our vision and desired outcomes within our external environment – both the present and future environments. It presents both future opportunities and threats to attaining the ideal results. We must always be cognizant of what will be going on in the future Environment, and what could change in the future that affects the way we operate.

STEP 2. ESTABLISHING MEASURABLE GOALS: PHASE B

The resolution of the problems should bring us nearer to achieving our ideal vision and desired results! It is a journey in which we must pass through various milestones which we have set for ourselves.

How do we crystallize the ideal vision and express it in concrete terms?

Experience has shown that goals or Key Success Measures based purely on performance are not enough. A more holistic approach would have goals covering 5 areas

1. Employees/Core values/Culture
2. Key Operational Indicators too
3. Customers and Satisfaction
4. Stockholders (Owners)Satisfaction
5. Stakeholders (Community/Society)

We should be measuring what is desired as outcomes, not what is easy.

STEP 3. IDENTIFY ROOT CAUSES AND TODAY'S STRENGTHS/WEAKNESSES: PHASE C:

Problems are like weeds. Weeds are very hardy and persistent plants we want to remove from our garden. Leave them alone, more weeds would grow. Cut them off at the surface, they will grow back. We have to kill or remove their root to prevent the weeds from propagating. No matter what we do, it is a matter of time that they will be back!

Troubleshooting and other problem-solving approaches with hastily-conceived, ill-considered solutions typically address the obvious symptoms and seek solutions to specific difficulties. Core problems are merely swept under the carpet. These problems can be compounded much worse and become costly at some later date.

Root Cause Analysis (RCA) digs below the symptoms to find the underlying compelling reasons to explain the gap between actual and desired performance. The deeper we dig, the clearer we see why the parts are not working together as they should, thus creating the problem.

Root causes may not be easy to trace:

- Roots are frequently hidden under the surface.
- Roots relate to origins and sources.
- Roots are established and entrenched.
- Roots can spread out far and wide
- Roots can be hard to find and harder to get rid of.
- Roots that aren't removed may continue growing.
- Root causes are usually delayed in time and space from the symptoms

To compound this problem, a given problem can have one or more root causes.

Fortunately there are three principles to guide us:

Firstly, a cause is any component sufficient to drive a change. This definition clearly shows whether an action or condition is a cause for a given effect. This definition also identifies those factors that are irrelevant and more importantly those evidence or hypotheses that are missing.

Secondly, a root cause would show where the fundamental relationship of the parts with a force, law, or limit had broken down. It is the point of contradiction between the

Systems Solutions vs. Simplistic Problem–Solving Alone

C	Identify problem, issue, or pain
A	Now Use Systems (and Backwards) Thinking:
E	1. Set ideal desired objectives or goals that also solve the root causes. It usually is a weakness in analytic thinking. <ul style="list-style-type: none"> • Within your scanning of the relevant future environment.
B	2. With quantifiable outcome measures of success.
C	3. Identify Current State Strengths/Weaknesses and root causes , not simple cause and effect symptoms. <ul style="list-style-type: none"> • Be sure to collect data and facts about the issues.
D	4. Brainstorm alternative strategies and actions to achieve these ideal outcomes or desired solutions. Do not just lock on quick answers. <ul style="list-style-type: none"> • There's always a third alternative. Find it.
B	Double back—gain more feedback <ul style="list-style-type: none"> • Troubleshoot the action plans. It is usually a weakness in analytic thinking. • Examine your biases and assumptions. • Include a “Parallel Involvement Process” with key stakeholders (both internal and external) to increase buy-in and ownership, and generate more ideas for correct systems solutions. • Remember to focus on the “relationships” of all the parts to each other, the potential Rubik’s Cube Effect of unintended consequences, and the overall desired outcomes
D	5. Develop first draft of strategies and integrated action plans
D	6. Implement action plans with speed and flexibility <ul style="list-style-type: none"> • Include rollout and communications as part of a “Smart Start”. • Predict and prepare for the Rollercoaster of Change™, the natural way the world works—that is natural, normal, and highly predictable.
B	7. Continually provide feedback about how close you are to meeting your goals. Give frequent status updates. Timing and goals may change, given the complex and changing environments that you are dealing with.

(Figure 2)

ing the initiatives and perform a “*plan-do-check*” on their ideas and strategies. Instead they should take a step backward to get feedback through brainstorming sessions with the relevant stakeholders involved with the problem.

These brainstorming sessions should fulfill three important tasks:

#1. To help find why existing approaches are not giving the desired results. A problem may have many possible causes and answers. The idea is to gather as much information as possible, just like the six sides of a Rubik’s Cube all affect each other.

#2. To generate ideas to break out of, established patterns of thinking and to develop new ways of looking at things.

#3. To develop fresh and creative alternative strategies or solutions to a problem and to evaluate and select the best ideas. This will help troubleshoot and provide feedback on the initial initiative. Feedback is the lifeline of the company. *Skeptics are our best friends* because they force us to re-examine our biases and assumptions, helping us to avoid unintended consequences.

system’s values (purpose, rules, values, culture, etc.) and these fundamental forces, laws, or limits.

Thirdly, effective RCA must be performed systematically, looking at all possible linkages and relationships among the parts of the organization. Any conclusions must be tested and substantiated by evidence. (Step 4 will amplify more on this.)

These guiding principles will give us a sense of direction on where, what and how to get the necessary information, data and evidences.

Excellent examples of organizations missing the root causes are seen in the way organization’s react to politicking, lack of cohesion among the work force, turf mentality and talent management.

PHASE C: CONTINUED CURRENT STATE ASSESSMENT (SWOT):

No proactive solution-seeking systems can be complete without a “SWOT” Analysis

to understand where it is today. This analysis can help reveal the strengths of the organization that are the driving forces of the problem. It also helps reveal the weak points. It lowers the risks to acceptable levels. The analysis helps you deploy resources in a way that ensures the barriers to success are reduced or eliminated.

However, traditional analysis that focuses on the present “SWOT” is no longer adequate in problem solving. Proactive organizations look first at their future as noted. They need to know what strengths and competencies to close the gap from today to this future.

STEP 4. BRAINSTORM ALTERNATIVE STRATEGIES AND ACTIONS: PHASE D:

Many organizations rush in with all the fixes once they thought they have found the root causes. Yet many found out the hard way that very soon their solutions have run aground. This could be avoided if they delay launch-

Brainstorming works best on two principles; i.e. “*Deferred judgment*” and “*Quantity breeds quality*.”

Our education intuitively pushes us to judge too quickly. Creative ideas flows best when the spontaneous ideas are allowed to be generated without being judged on their merit of its worth, practicality, importance or usefulness.

We have all the time to judge these ideas after we have finished with generating ideas.

The more ideas generated, the more likely good ones will surface. Brainstorming takes advantage of associations that one idea may lead to many others and that bad ideas may even lead to good ideas. Brainstorming gives you a chance to get ideas out of your head and onto paper so that you can go on to new and better ones.

Bringing the relevant stakeholders into the brainstorming sessions helps bring the experience of more team members into play and reduces the Rubik's Cube Effect of Unintended Consequences. This increases the richness and creativity of solutions explored (meaning that you can find better solutions to the problems you face, and make better decisions.)

It can also help you get buy in from team members for the solution chosen - after all, they have helped create that solution. Brainstorming would also allow us to feel the undercurrent of the organization and show what we need to work on the foundation.

STEP 5. DEVELOP FIRST DRAFT OF STRATEGIES AND INTEGRATED ACTION PLANS: PHASE D:

(i.e. gap analysis)

Brainstorming – in fact finding, in generation of ideas and in exploring various alternative strategies – can get an organization to sit back and to take a fresh look at the problems on a broader and bigger perspective. It can also reveal relationships that have been ignored before. All these are useful in helping organizations to prepare the first draft of strategies and integrated action plans. *The guiding principle is to select those alternatives that would be most appropriate for the organization to align their actions to close the gap for the attainment of their stated goals.*

Likewise, organizations need to decide how to remain highly profitable, competitive and productive in the long run, without compromising their long term objectives and values! More importantly, they must learn from their mistakes. They must learn how to deal with complexity and the Rubik's Cube Effect, discovering why things are not as they are, making the proper choices in anticipation of the future.

Systems Solutions based on The Systems Thinking Approach® are circular in thinking – refer to Figure 1. The first draft on strategies and action plans should bear the following in mind:

1. Focusing on the purpose and desired outcome for resolving the problem. What do they want to achieve as the final result? What core values are inviolable?
2. Focusing on the Cause and Effect of the gap: Why did this happen? Why are the systems, people and processes not performing to expectation?

3. Anticipating the Future: What potential problems or opportunities lies ahead? How to move the organization closer to its full potential to meet its business objectives?
4. Making Choices: Which course of action should we take in the face of uncertainties? A right choice supports the purposes or reasons for resolving the problem. The quest is for the most appropriate alternative that would result in the preferred set of all the possible solutions– an alternative that would suitably drive the whole organization and not one that is optimal for the present situation or for a particular part of the organization. This calls for expertise, creativity, factual information and stone-cold logic.

STEP 6. IMPLEMENT ACTION PLANS WITH SPEED AND FLEXIBILITY: PHASE D (CONTINUED):

Realistically every action plan has real consequences - consisting of personnel actions or non-actions. Some consequences may be intended, others may be unintended.

People resist change. Every change imposes stress. It involved a shift away from the comfort zone and a loss of control over uncertain outcomes. The greater the change, the greater the effort required to affect the change, the greater the patience needed. Old habit dies hard and it takes time to change. In fact, people actually undergo what we term the Rollercoaster of Change™.

This Rollercoaster is natural, normal, and highly predictable. People also react differently to any change and their response can differ over time. Thus it is necessary to prepare the organization to accept any impending change/solution.

Organizations not only have to deliberately and clearly specify their desired outcomes, goals, objectives, means, ends, and values; they must also communicate clearly the changes to be implemented, the reasons for the change, how it would affect individuals, and how they would help them through the transition to the desired outcomes. This stresses the need for proper communication, communication and more communication, before and during the rollout of the action plan! Getting people who were involved in the early planning stage could help allay the fears of others in the organization by sharing

how they overcome the fear and uncertainty of the impending changes.

Organizational inducements, rewards, and sanctions are required to reinforce the change. It is often said that *people do what is inspected, not what is expected.* We have to add to this: *people do what is rewarded.* The reward need not be purely monetary but could be in the form of public recognition e.g. praises, awards and stories.

STEP 7. CONTINUALLY PROVIDE FEEDBACK ABOUT HOW CLOSE YOU ARE TO MEETING YOUR GOALS: PHASE B AGAIN:

The attainment of the organizational goals and desired outcomes is a journey. Arriving at the destination is an achievement, but the excitement and challenges comes with the changing scenery and going through various milestones to get there. We have to press on no matter the obstacles.

The final phase in all “Systems Solutions” to achieve our results is by following through on the implementation and to sustain the momentum and direction.

It requires frequent status updates on whether chosen results are met within the given deadline. If there are delays, then each strategy and action plan needs to be examined in terms of (1) its adequacy of achieving the desired outcomes; and (2) the efficiency with which the result was obtained. Many organizations focus on adequacy, but they do not pay enough attention to the efficiency with which the desired result was obtained, with costly unintended consequences.

Given the complex and changing environments of today, this feedback might necessitate that timing and action plans need to be changed.

W. Edwards Deming said: “If you don't know how to ask the right questions, you discover nothing.”

Another in the
Systems Thinking Approach® Series.

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