Using Systems Thinking to Achieve Results in Organizational Development
INTRODUCTION

Doctors understand the interdependence of systems within the human body. For example, they know that the respiratory system is made up of many parts and that when a patient has difficulty breathing the entire system must be examined to determine the true cause of the problem. If only the presenting problem is addressed (a stuffy nose), they may overlook the true issue (a sinus infection) or cause unintended consequences (prescribing a medication that causes the patient to have an allergic reaction).

Similarly, those in the farming community quickly learn about systems—the natural cycles and patterns of cause and effect. When crops produce less than expected, farmers easily recognize the connection that outcome has to yearly rainfall levels, fertilization methods, pest control, irrigation, and whether the temperatures have been unseasonably warm or cold, not to mention the longer term impacts of soil nutrients and crop turnover. Both doctors and farmers are attuned to the inter-connectedness of a whole host of factors that impact the final outcome. They know that even a small change in just one of these factors impacts the end result.

Organizations, like biological systems such as the human body or agricultural crops, are interconnected and have interrelated and interdependent parts that make up the whole. They are living systems that rely on feedback to self-correct. A Systems Approach sees the organization as a complete system in which even small activities, interventions, or changes in one section have an effect on other sections, and on the organization as a whole. Successful leaders, like successful farmers and doctors, see the big picture and are attuned to underlying trends, patterns and consequences of actions. They are aware of the larger environment in which a project, issue or challenge is operating. For some, this awareness comes naturally but it is not always easy to translate this thinking to others, nor are the patterns always easy to see. Systems Thinking formalizes the process and provides a method for gaining insight into underlying system dynamics. It provides tools, models and a vocabulary to help organizations examine complexity, recognize the interplay of forces, see patterns of behavior over time, and generate effective solutions.

As public sector organizations find themselves operating in an increasingly complex environment, there is a need to increase their capability to understand, communicate and address this complexity so that effective decisions can be made. Systems Thinking is recognized as an effective approach to help organizations make sense of the interconnectedness of systems and develop solutions that are effective, long lasting, and sustainable.

On the following pages, we will explore the principles of Systems Thinking, the forces that are moving organizations to use this approach, issues to consider when introducing it into your organization, and how to increase your chances of success in its use.
SYSTEMS THINKING: WHAT IS IT?

Systems Thinking is a growing discipline designed to tackle complexity and produce significant results as we strive to understand and guide organizational change. It is a structured approach that emphasizes examining problems more completely and accurately before developing and implementing solutions. Often referred to as the cornerstone of a learning organization, Systems Thinking is one of the five disciplines of a learning organization as defined by Peter Senge. Systems Thinking focuses on:

- The organization as a whole
- Interactions between parts, not the parts themselves
- The way systems affect other systems
- Reoccurring patterns rather than just individual events
- Change over time
- How feedback affects the parts

Systems thinking allows us to more effectively examine complexities, test our mental models (how we think about or see a problem), and recognize “leverage points” (the point at which modifications will be most meaningful). With this approach the root cause of issues is uncovered so that the accurate “leverage point” can be identified, addressed and improved, creating positive impacts that reverberate throughout the entire system. The critical aspect to ensuring accuracy in defining the problem and identifying the appropriate “leverage point” is to involve the entire system and all stakeholders in the process. Thinking through assumptions together, challenging them and creating a shared understanding are key principals. Meaningful change is not top-down or even bottom-up; it is participative at all levels and aligned through a common understanding of the system as a whole.

Systems Thinking involves both a mindset that focuses on how the parts of a whole are interrelated and a set of tools that help organizations examine complexity. Systems Thinking takes a longer-term view of solving problems, recognizing that lasting change is best achieved through an on-going process not a knee-jerk reaction that produces a one-off fix. Coming at issues from this mindset, the approach looks to address problems proactively rather than reactively, relying on multi-level, multi-disciplinary teams to work together to generate solutions and create lasting improvements. It strives to develop people’s sensitivity to the interdependency of the entire system and the consequences (intended and unintended) of actions.

In addition to this mindset, Systems Thinking relies on a variety of specialized tools to graphically depict a particular system’s structure and behavior, achieve a collective understanding of the issues, and create a collaborative problem solving approach so that high impact interventions can be developed. Organizational issues are examined through the use of Causal Loop Diagrams, System Archetypes, Feedback Loops and Behavior Over Time Graphs. Because the diagrams created and information gathered through the use of these tools becomes the focus of the discussion, rather than someone’s personal opinion or perception of the problem, defensiveness is reduced and new ideas are allowed to emerge. There is no “us” vs. “them” only the workings of the whole system.

By employing the mindset and tools of Systems Thinking, organizations build a shared perception of dilemmas, avoid being at cross-purposes, enhance collaboration, foster a learning environment, and increase idea generation. Groups within the organization learn together, generating knowledge and understanding beyond what any one person already knows.
SYSTEMS THINKING: WHY NOW?

A number of factors are driving the public sector's growing interest in applying Systems Thinking to Organizational Development Issues:

- **Financial Constraints and Budget Cuts**
  With the significant budget constraints faced by public sector agencies there is a greater need to pool resources and use funds efficiently. Even more than in the past, organizations cannot afford the risk of spending their limited financial resources on a solution to the wrong problem. If your roof is leaking, deciding to replace the damaged carpet and repaint the ceiling won’t lead to a lasting solution and will only drain your budget of the resources needed for the right fix. In addition, budget cuts have led to department consolidations and streamlining of services so the need to understand the interconnections and interdependence of structures, programs and services is paramount. Silos are no longer possible and the resource sharing and integration that is required for success takes collaboration and a shared understanding of the system as a whole.

- **Workforce Reductions**
  Of course, in line with the financial cut backs, workforce reductions are prevalent and often result in staff that find themselves faced with challenges outside of their primary area of expertise. Consequently, there needs to be a flow of knowledge that will sustain the organization so that these leaner staffs can understand how all the pieces fit together. At the same time, precisely because they are working on unfamiliar tasks, these employees bring a different perspective- unbiased by norms, territorial issues, accepted practices, or engrained beliefs, and with in-depth knowledge of broader, interconnected tasks. With this new set of eyes on the problem, Systems Thinking provides an approach that takes advantage of this phenomenon and uses it to the organization’s advantage.

- **Ineffectiveness of Managing from Crisis to Crisis**
  While the pressure to make rapid changes in response to the challenging economic times is intense, jumping to conclusions and quick fixes only leads to band-aid solutions that are typically ineffective and unnecessarily costly. Organizations need to get in front of problems rather than jump from crisis to crisis in reactive fashion. Systems Thinking allows for a deeper, more accurate examination of the issues so that the resulting solution addresses the true problem, lasting change is enacted and therefore dollars are spent wisely. Resolving the root of the problem increases the ROI and helps avoid the burnout and low morale that develops when jumping from one crisis to the next.

- **Greater Public Scrutiny**
  Public sector agencies have always felt the need to meet the public expectations. Today there are even greater political and economic pressures for reform and expectations for efficiency and effectiveness are high. There is a stronger push for innovation in how agencies are managed, what services they offer and how these services are delivered. By gathering different perspectives and ensuring all viewpoints are expressed- tenants of System Thinking- there is a greater likelihood that all stakeholders will accept the resulting solutions and have enthusiasm for their implementation.
• **Increasing Complexity**
  The increased complexity of issues faced by the public sector creates a web of challenges where the presenting problem isn’t necessarily the real issue and where multiple, interconnected factors make it difficult to fully comprehend the ramifications of recommended solutions. This is revealed when the solution developed doesn’t address the problem, exacerbates it and/or creates yet another problem. The traditional linear approach to problem solving where one part of a system is fixed and then management moves on to another part of the system results in departments working well but the organization suffering as a whole due to lack of integration. More and more, leaders are realizing that, in order to be successful, they need to find an approach that deals with this complexity and leads to diverse parts of the organization being well coordinated.

**ISSUES TO CONSIDER**

**Systems Thinking** offers organizations many advantages to address complex problems in an inclusive, lasting way with high ROI. However, since it represents a paradigm shift in how problems are broken down, examined and discussed putting it into practice is not without its challenges.

• **Limited Knowledge of the Discipline and its Tools**
  While Systems Thinking comes intuitively to some, for many it is a completely different way of approaching problems. Given that the structured tools and line of questioning used to gain understanding of problems is unfamiliar to most, there will likely be a steep learning curve. Leaders will need to understand how to manage this learning curve handling the resistance, plateaus and frustrations that are sure to come into play.

• **Challenge of Managing and Facilitating Multifunctional Teams**
  The ability to create high functioning teams inclusive of all stakeholders- internal and external, management and staff, service provider and service user is no small task. It requires active listening, patience, encouragement and expertise in the theory and practice of group dynamics. In addition, for Systems Thinking to be successful, those managing and facilitating the process must move groups away from assigning blame while guiding them towards identifying trends and the underlying causal drivers of problems. Silo thinking, territorial tendencies, and the desire to rapidly identify and implement a solution are all hurdles that groups must overcome for Systems Thinking to take hold. Consequently, knowing how to reframe the conversation and ask the right questions becomes critical.

• **Fostering the Courage to View Situations More Honestly**
  System Thinking demands an admission that the norms and preferred/institutionalized ways of doing things may actually be producing or at least contributing to the current problem. However, too often there is a tendency and engrained culture of glossing over sensitive issues, taking sides in an “us vs. them” approach, disregarding the opinions of those with less experience, and becoming defensive when existing processes and structures are challenged. Overcoming these tendencies is necessary for Systems Thinking to work.
MOVING TOWARDS SYSTEMS THINKING

Even with the challenges raised above, moving towards Systems Thinking is worth the effort because it can break the cycle of addressing symptoms rather than root causes, open our minds to new ways of examining challenges, and lead to innovative and effective solutions. Several ways to increase the possibility of a successful transition to Systems Thinking include:

- **Define an Overall Vision, Mission and Goals**
  An important factor in moving towards Systems Thinking is to define an overall vision, mission and goals for the organization. Because Systems Thinking sees the organization as a complete system, it is essential that the strategies and plans of each part of the organization be aligned. Everyone needs to be on the same page. Silo thinking must move towards global thinking, with the organization viewing itself as one team, not a conglomeration of multiple teams.

- **Practice and Have Patience**
  While acknowledging the benefits of Systems Thinking, it is easy-given the shift in thinking required, use of unfamiliar tools, and new vocabulary involved-to feel uncertain about putting the approach into practice. To ease the transition, organizations need to gain an understanding of System's Thinking principles and practice using its tools. As when learning any new skill, study, hands-on exercises and on-going use will lead to improved performance. In addition, because Systems Thinking will be an entirely new way of examining issues for many, patience with all stakeholders and tolerance of missteps and setbacks will be required.

- **Build Competency in Managing and Facilitating Multifunctional Teams**
  Leaders must build their skills in managing and facilitating the group dynamics of multifunctional teams, which are integral to effectively implementing Systems Thinking. Being capable and comfortable pursuing differences of opinion, challenging assumptions, and encouraging involvement from all group members are key competencies required for success. Facilitating these powerful discussions among diverse stakeholders is an art as well as a science and demands that leaders ensure all ideas are heard, all perspectives are examined and that areas of difference are pursued so as not to overlook any aspect of the problem.

- **Encourage a Culture of Openness and Honesty**
  Going hand-in-hand with effectively working with multifunctional teams is the necessity to create a culture of openness in problem solving. Organizations must, therefore, have the courage to conduct conversations honestly and completely. To candidly share views and develop knowledge of other's perspectives as well as slow down the discussion so that deeply held beliefs and assumptions can be examined and challenged. The un-discussable must be brought to the forefront; the elephant in the room must be acknowledged. Only through adopting this type of culture can change on a deeper scale take place.

More than a collection of tools and methods, Systems Thinking is an underlying philosophy. It recognizes that the increasing complexity and interdependence of organizational issues creates new challenges that require a paradigm shift in our approach to problem solving, idea generation and decision-making. Ultimately, organizations that utilize Systems Thinking will improve the quality of their decisions and enjoy greater success.
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