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SYSTEMS THINKING AS A TEAM-BUILDING APPROACH

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The chief information officer (CIO) of the National Institutes of Health Clinical Center, a research hospital with a large outpatient facility, faced a formidable challenge: Over the last five years, based on the merger of two departments and increasing changes to meet the growing needs of this public healthcare organization, his department had expanded from a staff of 65 to 94. The IT department's charter is to keep the Clinical Center's computer infrastructure up and running, create new computer databases to serve the hospital's needs, and maintain existing databases—all of which are critically important.

Because of the department's rapid expansion, employees had to develop specialized skills, which meant that a team approach was essential to managing even one system. Even though the group was using structured project management methodologies and tools, the CIO recognized that silos were being formed, communication was breaking down, and people weren't functioning well as a team. So he turned to his executive coach for help in conducting a team-building retreat for his leadership group with the goals of "learning to work better together" and "communicating better."

TEAM TIP

In designing an intervention to an ongoing problem, identify potential leverage points—"a small change that has the capacity to have a big impact." Because the organization is a living system, look at the leverage points as hypotheses to be tested in the system for their potential ripple effects.

The coach suggested that the team adopt a systems thinking approach to see what was going on in the organization from a bigger-picture perspective. Her hypothesis was that it would provide the group with an opportunity to work on a meaningful challenge and, in the process, would help them develop their collaboration skills. Senior leaders agreed with this assessment, deciding that for the department to make progress in the areas of teamwork and communication, they needed to change the system in which they worked.

A Culture of "Yes"

The initiative began with a two-day leadership retreat, with 30-, 60-, and 120-day follow-ups. The leadership group consisted of 25 managers and supervisors, primarily information technology and clinical informatics specialists—nurses and doctors whose clinical expertise provided the link between the department and the customers they served.

The approach was not to teach the entire systems thinking methodology. Instead, after a brief introduction to key concepts to set the stage, the coach introduced systems archetypes. Systems archetypes are universal patterns of behavior. In this case, the 10 "classic" archetypes, as popularized in *The Fifth Discipline*, were introduced, along with 10 "positive" archetypes—the flip side of the same coin, as developed by Marilyn Herasymowych and Henry Senko of MHA Institute (click here for a description of some of the classic and positive archetypes). Because the archetypes are universal, people quickly understand them and can immediately begin to name where in their system they see that dynamic in action. Because the MHA method is based on stories rather than on causal loop diagrams, which often require a learning curve to understand, it makes seeing the big picture of the system easy for novices.

As each archetype was introduced, participants identified examples of how it manifested in their own group. By noon of the second day, they had identified 10 classic archetypes. By the end of the second day, they had identified 10 positive archetypes. The team was then divided into four groups of five to six people per group. Each group developed its own version of a map of the system in which the department operated. The participants asked questions such as, "Are there any obvious flows here? Which archetypes feed into which others?" The premise of this approach is that there is no one "right" map—they're all stories seen, lived, and told.

The groups then told their stories of the system to the rest of the team. While the maps were different, each narrative nonetheless resonated with the other participants. In particular, a pattern became clear that the team dubbed "the Vortex of Doom," with the flip side called "the Swirl of Hope."

From the maps, the team identified "noisy" archetypes. Noisy archetypes are characterized by conversational inconsistencies (e.g., conflict, disagreement, disparities) or structural limitations (e.g., policies, organizational charts, change interventions). Next, they looked for leverage points—"a small change that has the capacity to have a big impact." The group viewed leverage points as hypotheses to be tested. As individuals selected their top three potential leverage points, the one that generated the most consensus as a place to start was "making choices about what to say 'yes' to and what to say 'no' to."

The team talked about having a culture of "yes," in that customers and senior managers refused to accept "no" as a response to a request. They came to realize that, as they took on more and more assignments, the available resources in the department declined. The group talked about how this "Growth and Underinvestment" dynamic led people to take heroic efforts to accomplish their workload, which eventually led to burnout. They explored the implications of the "Attractiveness Principle," which involves managing interdependent limits in a complex system.

The team also did a future map showing what they thought the system would look like as a result of addressing this leverage point. They had lively discussion around the fact that their customers and managers were not used to hearing "no," and how team members might convey this message without alienating others. Participants recognized potential negative side effects of different interventions and focused on ways to mitigate them. These included:

- Engage in clear communication.
- Manage customer expectations.
- Give customers choices where they can, so it isn't an absolute "no."
- Let customers prioritize their own projects.
- Enlist management support.

Management support was a topic for discussion, and the group debated whether you could tell your manager "no." The general consensus was that there were non-negotiable priorities, but that managers were open to looking at different options; for example, "Okay, we'll push back this time, but here's what it will cost us in terms of support and impact on other projects and systems."

Finally, to make informed choices and priorities, the team decided they must first have a handle on what they had already agreed to. Thus, they planned to compile a project list that identified all the work being conducted within the department. The team came up with a 30-day action plan:

30-Day Action Plan

- The CIO will distribute a list of known and projected projects and initiatives.
- Each member of the leadership team will validate their projects, identify missing items, identify items no longer valid, and submit the annotated list to the CIO.
- The CIO will consolidate and distribute the consolidated list.
- The CIO and his team will meet for an initial review of the list.
- The CIO and his team will meet with the executive coach for a two-hour follow-up session to review the last 30 days and plan for the next 30.

The team noted the contrast in their mood from Day 1 to Day 2. After focusing initially on the classic archetypes, which draw out the negative trends in the system, they reported that they found themselves feeling overwhelmed and demoralized. After identifying and mapping the positive archetypes the next day, they were reminded of their capacity to make positive change and started to feel excited about their ability to improve what the day before had felt hopeless. Upon reflection, the team also commented that it was helpful to hear that others were experiencing the same emotions.

30 Days Later

Initially, the most important benefit the senior staff experienced was understanding their coworkers and their responsibilities in a new, more respectful light. In addition, during the retreat, the group identified a few processes that were not working as efficiently as possible. As people left the retreat, they had already planned meetings to discuss how to improve those practices. From the actual retreat content, the leadership team started to use the language of systems archetypes to evaluate, define, and communicate about the current system. Finally, the group had accomplished their goal of updating the list of existing commitments.

However, this last accomplishment had an unintended negative side effect: People felt overwhelmed by the sheer volume of the projects which with they were dealing. The project list was longer than expected, with 200 items. In addition to creating the list, the team also needed to design processes to filter new projects, maintain the list, and work together to review the list. At times, the list and the workload threatened to take over the department. But the group continued to apply their knowledge of the archetypes and monitor the system to improve communication and collaboration.

Despite the fact that their 30-day action plan only specified that they update the list, people felt demoralized that they hadn't made progress on the leverage point of "making choices about what to say 'yes' to and what to say 'no' to." One participant commented, "Basically, nothing's changed. All the negative archetypes that were there when we started are still there." Upon questioning, they conceded that there was positive movement within the negative archetypes, and evidence that more positive archetypes were happening. But since their workload hadn't changed, they felt they had failed, even though communication had dramatically changed. To dispel this negative perception, the group discussed the time delay factor in seeing the impact of the changes they'd made in their communication and in their system.

60 Days Later

At the 60-day follow-up, the team started recognizing the significant impact that had occurred in communication. One woman remarked that she was listening to a program on the radio about stovepipes in organizations, and suddenly it occurred to her that their organization no longer had them. The CIO spoke of having more patience about projects not getting done, because he had a better sense of the big picture and the interrelationships. Because of that insight, he felt he was less of a micromanager.

Various team members remarked that they see things from a systems thinking perspective. Now it is more common for them to think ahead and involve other teams in their efforts, whereas in the past they may not have done so until halfway through the project. The group also felt as though there were fewer surprises now that they had a broader picture of what was going on.

The project list went from being an overwhelming prospect to a useful tool.

The team recognized that they still needed to prioritize, and their plan for the next 30 days was around that goal. Interestingly enough, the CIO speculated that the project list was the cause of all the positive changes. After discussing this opinion, the team concluded that the list itself was not responsible for the improved communication; the changes wouldn't have happened in the absence of the leadership retreat with the systems thinking focus. In fact, one person mentioned that the department had created consolidated lists of projects in the past, without the same kind of positive results they were experiencing this time.

120 Days Later

A major project did not go as successfully as expected, and the team required about three months to resolve outstanding issues. The department worked hard to make sure the staff that worked on the project did not feel that fingers were pointing toward them. The team evaluated what worked and what did not, and then developed a process to handle unsuccessful projects.

Despite this setback, communication, teamwork, and morale stayed at an acceptable level. The leadership team thought that the leadership retreat and systems thinking perspective prevented the problem from being worse than it was. Here's how one team member described it:

> Systems thinking brought levity to the situation. We were able to deal with it in more of a non-blaming way, looking at things from a systems perspective. We made a collective decision to drift a few goals, so that we could move forward relieving the pressure of this crisis. We kept the customer informed and had a unified presence. Despite the stress people were feeling, we worked through the issues while maintaining our cool, stayed out of each other's way, and sent people home for rest and recovery. We understood the need to give ourselves a breath!

In describing in general what they learned at the retreat, one participant gave the following anecdotal story:

> We came in, and the office was flooded. We successfully communicated the need for temporary space, relocated everyone in three days, and maintained the level of support to our customers. Systems thinking helped us focus on helping each other out.

Other participants described the success of the systems thinking effort in the following way:

> When problems come up, we work more effectively as a team. Communication has improved across different groups. We're aware of creating a win/win among our users and our teams so that we all can win. The atmosphere we've created has made accomplishing our work much easier. "Planning for Limits" has been a big success. Regarding our recent fiasco, we looked at short-term fixes to relieve the pressure; now we're focusing on the longer-term strategy.
>
> We have a lot less "Shifting the Burden." We are also more aware of, and thus prevent, people and departments from becoming "Accidental Adversaries." We get problems to the right people more quickly, thereby minimizing the negative "Escalation" archetype.
>
> We are putting more focus on "Fixes that Work," not just quick fixes to relieve pressure. We are doing cross-training so we all are successful, minimizing the negative impact of "Success to the Successful."

The leadership team identified existing challenges:

- ***The "Attractiveness Principle" continues to be a strong negative archetype:*** We keep saying "yes" and are working on prioritizing and filtering what we take on. We are still suffering from "Growth and Underinvestment," which in turn causes "Tragedy of Commons" and "Limits to Success" (not enough resources to keep up with demands). Now that it's the end of the fiscal year, we are seeing a lot of new projects, and everyone wants them to start now. How we manage it will be key.
- ***Communicating to our customers is a challenge.*** They don't read our e-mails. We recognize that part of the problem might be because we've been sending them more, because they complain we don't keep them informed. It's a vicious circle.

The team discussed how to sustain the momentum going forward and came up with the following two items:

- ***After Action Reviews:*** The team emphasized integrating lessons learned into adjustments going forward. They would incorporate the After Action and Before Action Reviews into the current Lessons Learned approach.
- ***Systems Thinking at All Levels:*** To maximize the systems thinking process and sustain it going forward, people thought it needed to go down to all levels in the organization. Most people expressed a desire to have an abbreviated systems thinking training similar to the four-hour make-up session (for those who were absent from the two-day retreat), whereby people from each original group would have a chance to explain their maps, and participants would learn the language of the archetypes. The folks who did this at the four-hour make-up session commented that it was helpful to them in integrating their learning of the methodology.

Three months later, people still thought the leadership retreat was a success and were still reaping the rewards. Internal communication was the most visible improvement, and certain negative archetypes were affected in a positive way. The CIO and his leadership team recognized external communication with their customers as an area on which to focus next. They also saw the need to continue the efforts to prioritize and filter projects to mitigate the continued presence of the "Attractiveness Principle" archetype.

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