Nano Tools for Leaders® are fast, effective leadership tools that you can learn and start using in less than 15 minutes — with the potential to significantly impact your success as a leader and the engagement and productivity of the people you lead.

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THE GOAL:

For optimal and systemic decision-making, identify (and solve) the real problem.

NANO TOOL:

It’s a common leadership dilemma: you design and execute a solution, only to discover that you weren’t solving the real problem. And that’s a best case scenario. In some situations, your “solution” could create one or more new problems.

Symptoms and events, such as the collapse of Lehman Brothers, can look convincingly like the problem, and the availability of data — lots of data — leads many leaders to assume that finding solutions to complex problems only requires detailed information about the presumed direct causes and the harmful effects of the problem.

However, objective data is rarely sufficient to analyze the complex, and often hidden, dynamics that underlie major problems. And time has shown that those who hold a single point of view or perspective on a problem rarely succeed. Instead, expand your viewpoint and look both into and beyond the massive amounts of data that are now available to find the root causes to prevent similar events from happening again in the future.

How can you better identify — and solve — the real problem? The six action steps below can help guide decision-makers through a systemic process.

ACTION STEPS:

By considering each of these steps, you can help ensure that you are focusing on the right problem, and that you’ve considered the ramifications of potential solutions. The process reduces the downside of dealing with complex decisions and increases your competence in taking the calculated risks that all leaders must take.

1. Don’t be fooled by large amounts of data. Problems are often complex, with many contributing factors. Although it can be reassuring to think that an abundance of data will help you find ultimate solutions and predict system behavior, data is only helpful if you take the time to make sense of it. To find a lasting solution, it’s important to allocate as much or more time analyzing the data as collecting it — many leaders fail to take that into account.

2. Dive below the surface to understand the system that underlies the problem. Events are just the tip of the iceberg — easy to see and explore. They are the “above the surface” manifestation of patterns and trends (what has been...
happening, have we been here or someplace similar before?), systemic structures (what are the forces that contribute to these patterns?), and mental models (what about our thinking allows the situation to persist?). Considering these questions will help you and your team analyze the data more deeply.

3. **Widen your focus.** The concept of multiple perspectives is important when dealing with people too. Solving the problem of just one (or a small group) of those involved, generally leads to resistance from other stakeholders. Instead, plan an integrated approach that takes the roles and goals of all key people involved in complex problems into consideration.

4. **Define the boundaries of the problem.** After you’ve gathered the data and considered the stakeholders, the next step is to exclude all the factors that are not directly related to the problem. Your aim is to focus on the cause, its key drivers, and their effect, so it’s important to define the boundaries. These boundaries should be sufficiently open to include all the relevant cause-effect relationships, but sufficiently narrow to avoid generalization and a loss of focus. Use these boundaries to create a new, clear description of the problem you are solving.

5. **Identify causes, effects, and key stakeholders.** Within these boundaries, it’s time to focus on the causes and potential solutions. What are the root causes of the problem and what are the possible effects of those causes? What are some potential solutions, and the effects of those solutions? Who are the key stakeholders who stand to benefit from a change in the system? How can they be part of the solution? Keep in mind that a single effect can be the result of multiple causes, and a single cause can have multiple effects on a system.

6. **Analyze future developments.** Once the root of the problem is well understood, start analyzing future paths. Make forecasts based on past and current trends and patterns for how the problem might evolve in the future. What are the future paths you could take, and the effects of each path?

**HOW ORGANIZATIONS AND LEADERS USE IT:**

- Queen Rania Al Abdullah of Jordan established the Madrasati Initiative, a good example of a multi-stakeholder perspective on tackling complexity. The aim of the initiative is to ensure that all the stakeholders involved in the education sector share responsibility. In one of their projects — the Husban School — they collaborated with Toyota. In the first stage, they defined clear roles and responsibilities for the different stakeholders, which prevented them from perceiving Toyota as the “fairy godfather” who would provide everything without expecting them to shoulder responsibilities. This project, with its different perspectives, was a success and provided beneficial outcomes on all societal levels since it balanced the needs of every participant.

- The UNDP Guyana Low Carbon Emission Strategy was developed by a multi-stakeholder steering committee composed of agents from different levels, sectors, and interests — including the World Wildlife Fund [WWF], the Ministry of Agriculture, the Forest Producers Association, and indigenous group associations. The committee enables better decision-making and tackles local issues more effectively because of the different perspectives involved. Since the committee consists of all the stakeholders, it is very inclusive.

- The World Economic Forum (WEF) often uses scenarios to project the future of a specific sector, or a country, and sets strategies according to these projections. The scenarios enable relevant actors to set priorities, and monitor the performance of the system. The WEF scenario on the future of mining and metal is illustrative. After having identified the causes and effects of the problem, the WEF brings different stakeholders around the world together and provides them with an opportunity to discuss the key drivers shaping the sector, such as the population, industrialization, the economy, geo-economic, etc., and to evaluate their impacts.
• Technology group Bühler, together with the chemical group DSM, recognized the need to provide malnourished populations with highly nutritious foods. The companies developed a new production process in which new rice grains are fortified with additional vitamins and minerals extracted from rice flour. Winning over the Chinese market, however, was challenging. Bühler and DSM had to identify and speak individually to each major stakeholder group, including producers, buyers, consumers, and the government, convincing them to accept, produce, distribute, and sell it.

ADDITIONAL RESOURCES:


• “The Four Most Effective Ways Leaders Solve Problems,” Glenn Llopis. Forbes.com, Nov. 4, 2013. Argues that leaders must view problems not as distractions but as opportunities for continuous improvement.

ABOUT NANO TOOLS:

Nano Tools for Leaders® was conceived and developed by Deb Giffen, MCC, Director of Innovative Learning Solutions at Wharton Executive Education. It is jointly sponsored by Wharton Executive Education and Wharton’s Center for Leadership and Change Management, Wharton Professor of Management Michael Useem, Director. Nano Tools Academic Director is Professor John Paul MacDuffie, Professor of Management at the Wharton School and Director of the Program on Vehicle and Mobility Innovation (PVMI) at Wharton’s Mack Institute for Innovation Management.