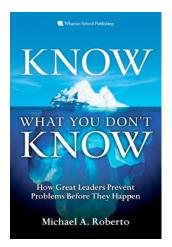
learning innovations laboratory Book Summary

Know What You Don't Know: How Great Leaders Prevent Problems Before They Happen



Roberto, M.A. (2009). *Know what you don't know.* Upper Saddle River, NJ: Wharton School Publishing.

Summary By: Michelle Chung Harvard Graduate School of Education 2010

Please note that this summary includes passages drawn from the original publication.

About the Author

Michael A. Roberto is a tenured Trustee Professor of Management at Bryant University in Smithfield, RI. He has also served on the faculty at Harvard Business School and has been a Visiting Associate Professor of Management at New York University's Stern School of Business. His research focuses on strategic decision-making processes and senior management teams.

Central Premise

The author argues that leaders at all levels must hone their skills as problem-finders to identify and correct problems and prevent catastrophe. To research this point, extensive interviews were conducted with roughly 150 managers of enterprises from private and public sector, often across different levels within the same company. Individuals were asked to describe how they tried to prevent failures from taking place. The author identifies seven skills and capabilities necessary to become an effective problem-finder. In the first chapter, problem-finding is substantiated as a vital skill for all leaders, followed subsequently by seven chapters that profile each of the seven recommended problem-finding skills, illustrated with key examples from field interviews. *Failure* and *problem* are terms used interchangeably, defined as "a condition in which the expected outcome has not been achieved." It is also noted that problem-finding should not replace, but is instead, linked to processes of continuous improvement within organizations: "We often will discover new problems while working to solve old ones."

From Problem-Solving to Problem-Finding (Chapter 1)

Large-scale failures have long incubation periods, which theoretically means that managers have ample time to intervene when warning signs appear. Chains of events and errors of either *technical* (equipment or technology failure), *cognitive* (individual judgment or analytical error), and/or *interpersonal* (communication breakdown or lack of conflict resolution) nature are signals of trouble ahead. Systemic failure occurs when smaller problems do not surface and remain at the local level, invisible to the broader organization for far too long.

Why problems remain hidden in organizations:

- Cultures of fear: Employees apply a Band-Aid at the local level instead of speaking up.
- Organizational complexity: Key messages get lost or mixed up along the way to leaders.
- Gatekeepers: Important information is filtered out to insulate leaders from bad news.
- Dismissing intuition: Formal analysis reigns over informal intuitive reasoning.
- Lack of training: Employees are not encouraged to spot and communicate problems.
- Cost: Gathering information to assess each potential threat expends time and effort.
- False alarm: Over time, too many of these can numb sensitivity to truly relevant issues.

How to become a problem-finding leader:

- Shift from crisis management to crisis prevention: "Great leaders don't simply know how to solve problems. They know how to find them. They detect smoke, rather than simply trying to fight raging fires." (Example: Before a code blue is called, Rapid Response Teams (RRTs), first developed in Australian hospitals, prevent cardiac arrest and death by attending to early warning signals noticed by nurses.)
- Embrace problems: Regard failure and false alarms as opportunities to learn and improve, rather than as abnormal conditions to be avoided at all costs. "Problems are not the enemy; hidden problems are...One cannot make great decisions or solve thorny problems unless one knows about them." (Example: Toyota Motor Corporation empowers all frontline workers to "pull the Andon cord" if a problem is found, and senior management meetings focus on sharing problems rather than successes.)
- Develop speedy, low-cost methods of problem-finding: Investigating problems may also expose vulnerabilities in processes that might not otherwise have been sought out. (Example: Build-a-Bear Workshop's Red Pencil Award, a monthly prize awarded to employees that identify ways to improve business by reflecting on a mistake.)
- Trust the process: Problem-finding abilities improve with time and leaders soon become more efficient at differentiating signals from background noise, saving time and energy.
- Avoid the isolation trap: Don't live in the corner office bubble. Don't let town hall meetings and factory tours become orchestrated shows that breed complacency. Reach out to and have genuine conversations with people at the periphery of the business. Acknowledge one's own faults publicly.

Seven Skills and Capabilities of Problem-Finders

1. Circumvent the Gatekeepers (Chapter 2)

Employees filter information at various levels so as to not overwhelm executives. Despite the often good intentions of these gatekeepers, leaders should be aware of the dangers of filtering and avoid behaviors that may suppress workers from presenting bad news or contradicting data. Leaders should engross themselves in all facets of the organization. "A leader's greatest

assets sometimes are his own eyes and ears." (Example: In the case of the Son Tay camp, President Richard Nixon's enthusiasm for the rescue mission and elaborate U.S. military preparations discouraged subordinates from revealing last-minute intelligence that the prisoners had been moved, and the incident became an embarrassment despite heroic efforts.)

Why filtering happens:

- Efficiency concerns: Individuals don't want to waste executives' precious time.
- Pressures for conformity: Subordinates feel that leaders don't want to hear anymore.
- Confirmation bias: People won't usually challenge decisions that they agree with.
- Advocacy: Information is presented in an unbalanced way for selfish initiatives.

How to circumvent gatekeepers:

Strategy	Description
Listen with your own ears	Create regular opportunities for direct, candid conversation between key constituents and senior leaders. Hold executives accountable for responding to the concerns they hear.
Seek different voices	Rotate responsibilities for key reports and presentations. Ask to meet with different people from lower levels of the organization. Seek out people who actually do the work or use the product.
Connect with young people	Seek out the youngest and the brightest inside and outside your organization. Use them to learn about new trends and gain access to a different worldview.
Go to the periphery	Communicate with employees in distant geographic regions, units exploring new technology, or small new ventures trying to get off the ground outside the firm's core market. Focus on the disconnects between what people are saying at the core versus the periphery of the business.
Talk to the nons	Make it a habit to speak with noncustomers, nonemployees, and nonsuppliers – those who choose not to interact with the organization for some reason.

Five Strategies for Circumventing the Filters (TABLE 2.1):

2. Become an Ethnographer (Chapter 3)

People often say one thing and do another. They may not even realize that their actions differ from their statements. Firsthand observation provides valuable insights into organizational functions beyond surveys or focus groups. In order not to dismiss odd behaviors or distort observations, leaders need to be open-minded and should try to conceal their executive identity beforehand or else, compare notes with another observer afterwards. Ethnographic research is recommended as a responsibility for all leaders, not only research or marketing divisions. "Effective leaders become adept at watching how customers shop, employees work, and competitors behave." (Example: Proctor and Gamble requires all executives to complete two home visits and two shopping trips with customers annually.)

Why people don't do what they say:

• Leading questions: Wording can elicit a specific answer-You agree with this point, right?

- Group dynamics: Individuals might either dominate or shy away when placed in focus groups.
- The unconscious mind: Although a person might espouse certain theories about how to act in particular situations, in reality s/he may behave differently to avoid embarrassment, confrontation, or offense.

How to observe like an ethnographer:

Principles of Effective Observation (TABLE 3.1):

Do's	Don'ts
Try to wipe away preconceived notions before starting your observations.	Begin with a strong expectation of what you expect to see.
Collect observations under different circumstances and from varied perspectives	Draw major conclusions from a very small and/or biased sample of observations.
Seek informants wisely.	Rely on the lone voice of a so-called expert
Take good notes, including quotes from key conversations, and collect important artifacts.	Try to commit everything strictly to memory.
Engage in active listening	Ask leading questions.
Keep systematic track of observations that surprise you or contradict your prior beliefs.	Seek and record data primarily to prove a preexisting hypothesis.

3. Hunt for Patterns (Chapter 4)

According to psychologist Gary Klein, intuition is a pattern-recognition process that allows one to size up situations and make decisions (for more about Klein's ideas see <u>his 2009 talk</u> at LILA). Patterns are not easily articulated, usually described as a "sixth sense" or "gut instinct," and are developed as exposure and expertise increase. By drawing analogies between the current situation and past experiences, leaders become adept at recognizing problems more quickly.

Challenges to intuitive thinking:

- Faulty analogies: Leaders may misuse analogies and act based on false assumptions or worst-case scenarios. (Example: During the 1976 "swine flu" incident, President Gerald Ford drew an erroneous analogy to the 1918 flu epidemic and called for immunizations, which caused more deaths due to side effects than the actual flu.)
- "A solution seeking a problem": Confident executives with successful business models use faulty reasoning to force matches between solutions and problems that do not fit.

How to build pattern-recognition capabilities:

- Mentoring: A mentoring program across levels of an organization serves dual purposes in developing pattern-recognition skills of novices while increasing empathy and communication skills of experts. Experts can also hone instincts by sharing with and learning from peers.
- Mining the Data: Carefully tracking smaller incidents provides data for discovering patterns and correcting common, repetitive problems. Making data transparent across departments allows leaders to assess potential threats on the whole organization.

• Separate assumption from fact:

Scrutinizing Our Assumptions: Seven Key Questions (TABLE 4.1)

- 1. What are the facts in this situation?
- 2. What issues remain ambiguous or uncertain?
- 3. What explicit and implicit assumptions have we made?
- 4. Have we confused facts with assumptions?
- 5. How would an outsider with an unbiased perspective evaluate each of our assumptions?
- 6. How would our conclusions change if each of our key assumptions proves incorrect?
- 7. Can we collect data, conduct a simple experiment, or perform certain analysis to validate or disprove crucial assumptions?

4. Connect the Dots (Chapter 5)

Problem-finders are able to connect the dots to reveal problems hidden among various types and sources of information. When information is not shared across departments or made visible to all parties involved, it is difficult for individuals to make connections across the company. (Example: Upon later inquiry, dispersed bits of information regarding the 9/11 terrorist attacks emerged. Lack of communication and information sharing across the intelligence community, as well as lack of a single access point to all the data, meant that no single person nor group could draw conclusions necessary to inform decisions.)

Why sufficient information sharing doesn't happen:

- Need for balance between differentiation and integration: Successful businesses are able to find alignment and coordination among specialized units to share information openly and seamlessly.
- Power struggle: Groups monopolize access to data as a leveraging tool.
- Similarities within small groups and big groups: Failure to share, discuss, and analyze information held privately by individuals within either small groups or big bureaucracies will lead to ineffective problem-solving.

How to facilitate information sharing:

- Promote healthy discussion within teams: Use a directive approach that helps to surface information being withheld by individuals. Effective leaders facilitate discussion by: "managing airtime" of dominant speakers, playing back and paraphrasing ideas for repetition, asking clarifying questions, encouraging constructive debate, and resolving uncertainties at the end.
- Structural solutions: The addition of specialized structures increases centralization and integration of knowledge especially in larger organizations.
- Foster social networks and collaboration: Techniques for promoting social interactions and mass collaboration include: job rotations, retreats, off-site gatherings, and wikis.
- Change organizational mindset and culture: Individuals who find and prevent problems should be rewarded over others who simply solve the problem after the fact.
- Nurture synthesis as an important leadership responsibility: Learn to connect and integrate opposing ideas and discordant information by: researching complexities within problems, systematically examine problems rather than look at each part separately, and use the synthesis process to generate innovative ideas.

5. Encourage Useful Failures (Chapter 6)

Problem-finding requires a heightened tolerance of failure. People who fear mistakes will subsequently fear punishment for admitting mistakes. Without knowing where errors arise from, leaders can neither spot patterns, nor connect dots to prevent disaster, and valuable opportunities for learning are lost. Leading by example, executives can give the ultimate "freedom to fail" by exposing their own painful mistakes without pointing fingers. Identifying low-cost, low-risk opportunities for new ideas creates safe parameters within which employees can experiment without fear.

Acceptable versus unacceptable failures:

• Clearly distinguishing between tolerable failure and "blameworthy act" maintains accountability:

How to assess a failure (TABLE 6.1):

Before the Failure	During the Failure	After the Failure	
What processes did they employ to formulate their plan?	Did they measure progress systematically?	Did they accept personal responsibility?	
Did they conduct an effective pilot, if possible?	Did they adapt their original plan based on interim feedback?	Did they try to learn as much as possible from the failure?	
Did they seek to learn from similar past projects?	Did they throw good money after bad?	Did they salvage any tangible and/or intangible assets from the failure?	

6. Teach How to Talk and Listen (Chapter 7)

Leaders should refine their own communication techniques and those of the organization. Empower frontline workers by training them to discover and present problems effectively. Managers must learn to encourage employees to speak up and know how to handle their comments appropriately. (Example: In the Tenerife disaster of 1977, miscommunication and lack of teamwork caused two Boeing 747 jets to collide, killing 583 people in the worst accident in aviation history.)

Types of communication errors:

- Sender errors: omitting key information, ignoring the impact of nonverbal cues, speaking too quickly, assuming that silence denotes agreement, failure to repeat important messages
- Receiver errors: assumed meanings of words and ideas, jumping too quickly to conclusions, missing nonverbal cues, failing to ask clarifying questions, attention loss due to multitasking

Improving interpersonal communication:

• Briefings: As the initial interaction between team members, it is important to clearly outline and shared goals and objectives, define roles and responsibilities, create a schedule, distribute workload, establish norms, build familiarity, and clarify team

structure. Leaders should open lines of communication and discuss approaches to possible problems with the group.

- Handoffs: Establish when and where critical handoffs take place in the organization and what potential problems are present to ensure smooth operations. During the handoff, communicate face-to-face if possible, provide written information in advance of the meeting, strive to keep briefing concise, use teams to brief each other, and confirm interpretations.
- Listening: Engage in active listening. Interact with the speaker through clarifying questions, statements, nonverbal cues, and refraining from jumping to conclusions.
- Train teams: Teach intact teams instead of random groupings of "high potential" individuals in order to develop interpersonal efficiency for working groups.
- Speaking up effectively:

Strategy	Description
Know your audience	Learn about the person you are trying to persuade. Present your arguments in a way that fits that person's preferred mode of processing information.
Understand the history	Determine who will feel most threatened by your attempts to shine a spotlight on a particular problem. Avoid placing blame on that person; focus on how to improve the situation.
Seek allies and build coalitions	Strength resides in numbers. Find other who will support your viewpoint. Present a united front.
Work through key confidants and gatekeepers.	Identify the individuals who have the ear of the person you ultimately must persuade. Seek them out, and try to bring them onboard first.
Focus first on divergent thinking	Remember that your near-term goal should not be to persuade everyone to adopt your view immediately. Begin by simply trying to encourage people to think differently about the situation at hand.
Present alternative solutions	Do not just point out the problem; offer a series of possible solutions. Make it clear that you want to help fix the problem.

How to Speak Up More Effectively (TABLE 7.1):

7. Watch the Game Film (Chapter 8)

Systematically review past performances, including those of the competition in order to reflect on weakness and reflect on previous mistakes. Participate in lessons learned and competitiveintelligence exercises. Create opportunities for employees to refine skills through practical situations. (Example: Leaders become like coaches and employees are like athletes. It helps to review game film to know your competition, and sometimes even more importantly, to be selfcritical.)

Promises and perils of organizational learning activities:

 After-Action Reviews: Conducted immediately after the program is completed, participants reflect and critique what happened, focusing on four fundamental questions:
What did we set out to do?, What actually happened?, Why did it happen?, What will we do next time? While some organizations employ AARs effectively, others struggle to understand the value of the exercise, which may become long, biased, or turn into an excuse for blame. Many suggestions of AARs often never get implemented. Informal documentation of near misses, such as the "good-catch logs" at Children's Hospital in Minneapolis, offers an anonymous outlet for sharing concerns and assembling data to act as the basis for future improvements.

- Competitor Intelligence: Precise and deep analysis of a rival organization offer insightful comparisons when comparing specific functions of the company. Broad SWOT analysis will only produce a generic list of differences rather than a clear understanding of important issues to address. If leaders involve frontline workers in the competitor intelligence process, more eyes will contribute to a more robust collecting and synthesizing of observations.
- Benchmarking: Don't get lost or fixated on the quantitative numbers. Remember to consider "soft, qualitative information" about competitors such as culture and leadership.
 Focusing too much on direct rivals is too narrow a scope. Consider growing companies or firms with out-of-the-box approaches that are worthwhile learning from.
- Deliberate practice: Use repetition and immediate feedback to refine underdeveloped techniques of realistic situations rather than wasting time and energy on unnecessary reiteration. Build deliberate practice directly into the company's employee-development program.

The Mindset of a Problem-finder (Chapter 9)

The final step to becoming a problem-finder is to develop a new mindset coupled with newly acquired problem-finding skills. Three dimensions of the mindset include: intellectual curiosity for proactively seeking problems, systemic thinking to link small errors with organizational problems, and a healthy dose of paranoia to combat complacency.