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Today's central managerial challenge is to inspire and enable knowledge workers to solve, day in and day out, problems that cannot be anticipated.

The Competitive Imperative of Learning

by Amy C. Edmondson

Included with this full-text Harvard Business Review article:

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The Competitive Imperative of Learning

The Idea in Brief

Most managers believe that relentless execution—the efficient, timely production and delivery of offerings—is vital to corporate performance. Execution-as-efficiency is important. But focusing *too* narrowly on it can prevent your company from adapting effectively to change.

Consider General Motors: Managers' confidence in GM's famously efficient control systems blinded them to big shifts in the market, including customers' preferences for fuel-efficient cars. GM posted a $38.7 billion loss in 2007.

Edmondson recommends widening your lens to include **execution-as-learning**. Companies that use this approach focus not just on carrying out key processes more efficiently than rivals—but also on *learning* faster. To foster execution-as-learning, make it safe for employees to ask questions and fail. Then:

- Provide process guidelines, using the best available knowledge.
- Encourage collaborative decision-making.
- Collect process data describing how work unfolds.
- Use the data to identify process-improvement opportunities.

Through execution-as-learning, General Electric continually reinvents itself in multiple fields. Its 2007 profit? $22.5 billion.

The Idea in Practice

Edmondson provides these ideas for cultivating execution-as-learning in your firm:

Make It Safe. In psychologically safe environments, people offer ideas, questions, and concerns. They're willing to fail—and when they do, they learn. To create a safe environment:

- Model openness, humility, and curiosity.
- Explicitly acknowledge the lack of answers to the tough problems facing your group.
- Ask questions showing that you genuinely want people's input.
- Reward learning.

▶ Example:
Pharmaceutical giant Eli Lilly's chief science officer introduced "failure parties" to honor intelligent experiments that failed.

Provide Process Guidelines. Even if you can't fully standardize knowledge work, you can provide process guidelines informed by best practices. Develop flexible guidelines, understanding that today's best practices won't be tomorrow's and won't work in every situation.

▶ Example:
Intermountain Healthcare assembled teams of experts on different diseases to develop detailed guidelines for treating patients with those conditions. Derived from analysis and debate among diverse professionals, the guidelines reflected the current best practices in the medical literature.

Encourage Collaborative Decision Making. Knowledge work requires people to make decisions together in response to unforeseen, novel, or complex problems. Provide tools enabling them to collaborate in real time.

▶ Example:
The Cleveland Clinic developed state-of-the-art IT systems that help dispersed caregivers who are participating in a patient's care to work together virtually. For instance, through an automated alert function, physicians learn of drugs others have prescribed. Medication decisions with interdependent consequences are thus made safely.

Collect Process Data. Gather data describing how work unfolds. Use it to determine what's going right and what's going wrong.

▶ Example:
Intermountain Healthcare allows doctors to deviate from the process guidelines anytime they judge that good patient care requires it. But doctors who deviate must help the organization learn—by documenting what they did differently and why.

Identify Process-Improvement Opportunities. Analyze process data to improve the way activities are performed.

▶ Example:
At the Cleveland Clinic, seven teams of physicians focusing on specific conditions (heart failure, stroke, diabetes) study process data to identify areas for improvement throughout the organization's many sites. For instance, data showed that stroke patients treated at various sites had not always received a blood thinner within the three-hour window that research had identified as the standard of care. Analysis of patient outcomes helped make blood-thinner treatment the new standard of stroke care for all Cleveland Clinic hospitals. Consequently, hospitals doubled their use of blood thinner and reduced complications from stroke by 50%.

Today's central managerial challenge is to inspire and enable knowledge workers to solve, day in and day out, problems that cannot be anticipated.

The Competitive Imperative of Learning

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Most executives believe that relentless execution—the efficient, timely, consistent production and delivery of goods or services—is the surefire path to customer satisfaction and financial results. Managers who let up on execution even briefly, the assumption goes, do so at their peril.

In fact, even flawless execution cannot guarantee enduring success in the knowledge economy. The influx of new knowledge in most fields makes it easy to fall behind. Consider General Motors—the largest, most profitable company in the world in the early 1970s. Confident of the wisdom of its approach, GM remained wedded to a well-developed competency in centralized control and high-volume execution. Despite this, the firm steadily lost ground in subsequent decades and posted a record $38.7 billion loss in 2007. Like many dominant companies in the industrial era, General Motors was slow to understand that great execution is difficult to sustain—not because people get tired of working hard, but because the managerial mind-set that enables efficient execution inhibits employees' ability to learn and innovate. A focus on getting things done, and done right, crowds out the experimentation and reflection vital to sustainable success.

My research identifies a different approach to execution—what I call *execution-as-learning*—that promotes success over the long haul. Think of General Electric, another powerhouse born in the industrial era. Since the 1980s, the company has constantly evaluated its activities, found ways to improve, and built the expectation that learning will be ongoing into management practices. As a result, GE has continued to reinvent itself with operations in every field from wind energy to medical diagnostics, and it posted a $22.5 billion profit in 2007.

From a distance, execution-as-learning looks a lot like execution-as-efficiency. There's the same discipline, respect for systems, and attention to detail. Look closer, however, and you find a radically different organizational mind-set, one that focuses not so much on

making sure a process is carried out as on helping it evolve, building four unique approaches into day-to-day work.

First, organizations that focus on execution-as-learning use the best knowledge obtainable (which is understood to be a moving target) to inform the design of specific process guidelines. Second, they enable their employees to collaborate by making information available when and where it's needed. Third, they routinely capture process data to discover how work is really being done. Finally, they study these data in an effort to find ways to improve. These four practices form the basis of a learning infrastructure that runs through the fabric of the organization, making continual learning part of business as usual.

Having studied knowledge organizations—hospitals, in particular—for nearly 20 years, I'd like to offer a new definition of what successful execution looks like in the knowledge economy: The best organizations have figured out how to learn quickly while maintaining high quality standards.

What's Wrong with Execution?

Most management systems in use today date back to a manufacturing-dominated era in which firms were organized to execute as efficiently as possible. Throughout the twentieth century, the core challenge factory managers faced was controlling variability. In their approach to large-scale auto manufacturing, for example, pioneering thinkers like Henry Ford and Frederick Taylor sought to parcel out simple, repetitive tasks to people on an assembly line to reduce the likelihood of human error while producing as many cars as possible. Later, manufacturing managers adopted tools such as statistical process control to help make sure the job got done right, every time. For a long while and in many circumstances, management systems that were focused on execution-as-efficiency worked brilliantly, transforming unpredictable and expensive customized work into uniform, economical modes of mass production.

Underlying the notion of a simple, controllable production system was the notion of the simple, controllable employee. In the factory model of management, it was easy to monitor workers and measure their output. Because the work itself was not terribly interesting or motivating in its own right, managers intuitively relied on what Freud called "the pleasure principle," the idea that human beings are motivated to seek pleasure and avoid pain. Thus supervisors used a combination of carrots (more pay for more tasks completed) and sticks (reprimands or the threat of job loss) to motivate employees. These behavioral strategies were very successful, but they produced an unfortunate legacy that still characterizes many workplaces today—an undercurrent of fear.

With the rise of knowledge-based organizations in the information age, the old model no longer works, for a number of reasons. In such organizations, it's difficult, if not impossible, to monitor employee productivity or measure individual performance in simple ways, such as by hours worked. Performance is increasingly determined by factors that can't be overseen: intelligent experimentation, ingenuity, interpersonal skills, resilience in the face of adversity, for instance. Consider a hospital emergency room. At any moment, a patient with a previously unheard-of set of symptoms might walk in, and specialists from several departments—reception, nursing, medicine, laboratory, surgery, pharmacy—need to coordinate their efforts if the patient is to receive effective care. These people must resolve conflicting priorities and opinions quickly. As in most knowledge organizations, room to maneuver is extraordinarily high. People rely on their own and their colleagues' judgment and expertise, rather than on management direction, to decide what to do. When work is interdependent and in flux, as it is in this situation, interpersonal fear is not only unhelpful—it's downright counterproductive.

By continuing to think of execution in the old-fashioned, narrow sense, companies fall into predictable self-sabotaging traps:

Critical information and ideas fail to rise to the top. When people get the message that speed, efficiency, and results are what matter, they become exceedingly reluctant to risk taking up managers' time with any but the most certain and positive of inputs. They don't offer ideas, concerns, or even questions. One study at a high-tech multinational found that over half the employees believed it was unsafe to say what was on their minds. Subsequent interviews revealed that employees withheld not only bad news but also new ideas; both

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seemed risky because of higher-ups' emphasis on superb and timely performance.

Consider the example of a team leader who tried to stimulate honest reflection about a large software-development project. He opened a post-project review by stating what he believed he himself could have done better. To his surprise, this honest self-assessment came back to haunt him when, during his next performance review, his manager noted, "I see you have made some mistakes this year," and used the data to lower his ratings. When employees feel they can't speak up about small failures, their organizations are at increased risk for large ones.

People don't have enough time to learn. An exclusive focus on execution-as-efficiency leads companies to delay, discourage, or understaff investments in areas where learning is critical. It's a given that switching to a new approach can lower performance in the short run. The fastest hunt-and-peck typist must endure a short-term hit to performance while learning to touch-type, just as the tennis player suffers initially when shifting to a new, better serve. These are the costs of learning, which has its payoff in future performance. Managers who overemphasize results can subtly discourage technologies, skills, or practices that make new approaches viable.

When a major telecommunications firm launched the technologically new digital subscriber line (DSL) internet service in the late 1990s, it set ambitious production targets that failed to take the need for learning into account. The staff did not have sufficient time to work out how to implement new software and hardware that had to operate with customers' not always up-to-date personal computer equipment: The result was a customer service nightmare.

Execution-as-Efficiency	vs.	Execution-as-Learning
Leaders provide answers.		Leaders set direction and articulate the mission.
Employees follow directions.		Employees (usually in teams) discover answers.
Optimal work processes are designed and set up in advance.		Tentative work processes are set up as a starting point.
New work processes are developed infrequently; implementing change is a huge undertaking.		Work processes keep developing; small changes—experiments and improvements—are a way of life.
Feedback is typically one-way (from boss to employee) and corrective ("You're not doing it right.")		Feedback is always two-way: The boss gives feedback in the form of coaching and advice; team members give feedback about what they're learning from doing the (ever-changing) work.
Problem solving is rarely required; judgment is not expected; employees ask managers when they're unsure.		Problem solving is constantly needed, so valuable information is provided to guide employees' judgment.
Fear (of the boss or of consequences) is often part of the work environment and generally does not appreciably harm the quality of execution; it may even motivate effort and attentiveness in those facing an otherwise dull task.		Fear cripples the learning process: It inhibits experimentation, lowers awareness of options, and discourages people from sharing and analyzing insights, questions, and problems.

Unhealthy internal competition arises. To motivate people to execute well, companies often reward those divisions or plants with the best performance. This can make people reluctant to share ideas or best practices with their colleagues in other groups. Following his successful turnaround of the Simmons Bedding Company in 2003, CEO Charlie Eitel said in an interview that the firm's 18 manufacturing plants—formerly competitors for a single annual award for best producer—had been individually hoarding successful practices for years. By adding incentives for absolute, rather than relative, quality and productivity, the company shifted its culture, encouraging people in different plants to share information—and saved $21 million through process improvements in the first year.

Companies think they can do no wrong. When a successful business is wedded to its execution-as-efficiency approach, managers can fall prey to a classic attribution error: the conclusion that the company's success is evidence of its wisdom. General Motors' confidence in its centralized control systems blinded the company to major shifts in the automotive market, including customers' preference for smaller, fuel-efficient cars and the growing presence of foreign competitors in the U.S. market. Similarly, HBS professor Mary Tripsas has shown, Polaroid's confidence in its instant-film business model blocked senior executives' ability to appreciate the opportunities presented by digital imaging.

First, Make It Safe

While General Motors was placing its faith in its execution efficiencies, Toyota was taking a different route, focusing on bottom-up process improvements of much the sort we're discussing here, famously allowing any employee who saw a problem—small or large—to stop the line. Toyota has made no secret of its approach and invites executives the world over to come to its factories and see for themselves. And yet when visitors return to their own companies and try to put Toyota-like systems in place, many are disappointed, having failed to import the mind-set and culture that make the system work.

My research on why people withhold constructive ideas in the workplace suggests that before execution-as-learning can occur, organizations must fulfill one big prerequisite: They need to foster psychological safety. This means ensuring that no one is penalized if they ask for help or admit a mistake. Psychological safety is crucial, especially in organizations where knowledge constantly changes, where workers need to collaborate, and where those workers must make wise decisions without management intervention. It's built on the premise that no one can perform perfectly in every situation when knowledge and best practice are moving targets.

In her research on individual mind-set differences, Stanford psychologist Carol Dweck has shown that the way children view a task affects their persistence and performance over time. Some children think of human ability or intelligence as fixed and, consequently, think of school tasks as performance opportunities—moments of truth that prove whether or not they're smart. For these children, performing poorly on an assignment or a test would demonstrate that they lacked intelligence rather than indicating that they had more to learn. Believing that the point of execution is to demonstrate competence, they go out of their way to pick easier tasks. Of course, this means they lose out when it comes to learning. This same mind-set encourages managers to admire and expect to be rewarded for decisiveness, efficiency, and action rather than for reflection, inquiry, and collaboration, the uncertainty of which makes them uncomfortable. Like the children who have learned to shun new challenges, these managers avoid, and help others avoid, the risks of questions and experiments.

In psychologically safe environments, people are willing to offer up ideas, questions, concerns—they are even willing to fail—and when they do, they learn. In her studies, Dweck found that some children—those who early on were rewarded for effort and creativity more than for simply giving the right answer—see intelligence as something malleable that improves with attention and effort. Tasks are opportunities for learning; failure is just evidence that they haven't mastered the task yet. Driven by curiosity about what will and will not work, they experiment. When things don't pan out, they don't give up or see themselves as inadequate. They pay attention to what went wrong and try something different next time. In adults, such a mind-set allows managers to strike the right

tone of openness, humility, curiosity, and humor in ways that encourage their teams to learn.

Some managers might argue that fostering psychological safety can make it difficult to hold people accountable. Certainly, if employees feel particularly close to one another and the managerial hand is relatively weak, performance standards can slip. But in general, psychological safety is independent from employee accountability, and healthy organizations foster both by setting high performance aspirations while acknowledging areas of uncertainty that require continued exploration or debate. Setting ambitious goals while conceding the limits of current knowledge encourages striving without shutting down inquiry. On the other hand, an undue focus on accountability without psychological safety can produce a variety of organizational dysfunctions. (For more on this, see the exhibit "Does Psychological Safety Hinder Performance?")

Psychological safety is not about being nice—or about lowering performance standards. Quite the opposite: It's about recognizing that high performance *requires* the openness, flexibility, and interdependence that can develop only in a psychologically safe environment, especially when the situation is changing or complex. Psychological safety makes it possible to give tough feedback and have difficult conversations—which demand trust and respect—without the need to tiptoe around the truth.

Not surprisingly, the most important influence on psychological safety is the nearest boss. Signals sent by people in power are critical to employees' ability and willingness to offer their ideas and observations. This means that levels of psychological safety vary strikingly from department to department and work group to work group, even in organizations known for having a powerful corporate culture. In a study of eight units in two teaching hospitals, for example, I found large differences in employees' beliefs about whether it was safe to report medication errors—and differences in error-reporting rates as high as tenfold. As a result, some units were identifying risks and coming up with ways to avoid future problems, while others were not because the people in them were terrified to speak up.

Such findings shine the spotlight, for better or worse, on middle managers. How can they help create psychological safety in the groups they lead? A couple of simple, if not always intuitive, steps appear to make an enormous difference.

The first is to explicitly acknowledge the lack of answers to the tough problems groups face. (Strange as it may seem, very few managers do this. It's not that they don't recognize the imperfect state of knowledge; they just fail to mention it.) Acknowledging uncertainty may seem like a weakness, but in fact it's usually an intelligent and accurate diagnosis of a murky situation. When supervisors admit that they don't know something or made a mistake, their genuine display of humility encourages others to do the same.

The second is to ask questions—real questions, not leading or rhetorical ones. Simply put, when people believe that their managers want to hear from them and value their input, they respond more. Indeed, one could feel awkward or foolish not speaking in response to a question.

This is especially so when lives are on the line. In one study of quality-improvement

Does Psychological Safety Hinder Performance?

Psychological safety does not operate at the expense of employee accountability; the most effective organizations achieve high levels of both, as this matrix shows.

Accountability for Meeting Demanding Goals

Psychological Safety	LOW	HIGH
HIGH	**Comfort zone** Employees really enjoy working with one another but don't feel particularly challenged. Nor do they work very hard. Some family businesses and small consultancies fall into this quadrant.	**Learning zone** Here the focus is on collaboration and learning in the service of high-performance outcomes. The hospitals described in this article fall into this quadrant.
LOW	**Apathy zone** Employees tend to be apathetic and spend their time jockeying for position. Typical organizations in this quadrant are large, top-heavy bureaucracies, where people fulfill their functions but the preferred modus operandi is to curry favor rather than to share ideas.	**Anxiety zone** Such firms are breeding grounds for anxiety. People fear to offer tentative ideas, try new things, or ask colleagues for help, even though they know great work requires all three. Some investment banks and high-powered consultancies fall into this quadrant.

projects in intensive-care units at 23 hospitals, my colleagues and I showed that when medical directors asked questions, acknowledged their own fallibility or lack of knowledge, and appreciated others' contributions, the people in their units felt a higher degree of psychological safety than those in units whose leaders did not do so. As a result, these units more quickly adopted new practices that could reduce infection rates and lead to other improvements in patient care.

Senior executives, too, play an important role in building psychological safety. For instance, as CEO of Prudential Financial, Art Ryan instituted a series of training initiatives called "Safe to Say" to let employees know that their voices were not only welcome but required for success. Eli Lilly's chief science officer introduced "failure parties" to honor intelligent experiments that failed. Policy interventions like these work best when accompanied by a clear and credible rationale for why openness and directness are needed to achieve superb performance. Senior executives may be best positioned to convey this message.

Execution-as-Learning: Four Steps

Organizations that adopt an execution-as-learning model don't focus on getting things done more efficiently than competitors do. Instead, they focus on learning faster. The goal is to find out what works and what doesn't; employees must absorb new knowledge while executing, often sacrificing short-term efficiency to gain insight into and respond to novel problems. My research has revealed four steps for making this happen.

Step 1: Provide process guidelines. Figuring out the best ways to accomplish different kinds of work in a rapidly changing environment starts with seeking out best practices gathered from experts, publications, and even competitors. The path to execution-as-learning is thus similar to the path to efficiency—it starts with establishing standard processes. But the goal of these processes is not so much to produce efficiency as to facilitate learning, because effective knowledge organizations recognize that today's best practices won't be tomorrow's and won't work in every situation.

For example, the renowned design firm IDEO adheres faithfully to a standard process for developing its many innovative products. Similarly, in a hospital, even though each patient is unique, standard protocols make it easier for medical specialists to think in real time about the individual features of the case because the steps common to all patients with a particular condition are prescribed in advance. Standard processes both simplify routine action and highlight discrepancies in specific cases that suggest the need for process innovation or refinement.

To understand how this works, let's look at an extraordinary health care organization called Intermountain Healthcare (IHC), an integrated system of over 100 facilities—including 21 hospitals, and numerous health centers, outpatient clinics, counseling centers, and group practices—located across Utah and southeastern Idaho. To increase employees' chances of making good decisions under pressure and reduce unwanted variability in patient care, senior management put together 60 teams of experts on different diseases to develop detailed process guidelines for treating patients with those conditions. The high quality of these guidelines—designed to reflect the current best practices in the medical literature—was the result of analysis and debate by professionals in nursing and medicine who held diverse points of view. Each team worked hard to develop a set of clinical-care processes outlining the way patient care should unfold on the front lines. Similarly, Children's Hospitals and Clinics of Minnesota convenes teams to review and standardize different types of care, using principles of lean manufacturing.

Step 2: Provide tools that enable employees to collaborate in real time. No matter how much thought goes into advance planning, knowledge work often requires people to make concurrent collaborative decisions in response to unforeseen, novel, or complex problems. That is why another leading medical center, the Cleveland Clinic, developed its own state-of-the-art information technology systems that enable dispersed individuals participating in a particular patient's care to work together virtually. Dr. Martin Harris, the clinic's chief information officer, explains that the IT infrastructure "connects every caregiver in all of our facilities throughout Ohio and Florida into what is essentially a single medical practice. That means that all the vital

medical information related to each patient is available to any caregiver in our health system whenever and wherever it is needed." When a patient sees several physicians, as is often the case, caregivers working in different locations at different times can coordinate effectively. For example, through an automated alert function, physicians learn of drugs others have prescribed, thereby ensuring that medication decisions with interdependent consequences are made safely.

Fostering face-to-face collaboration is also critical in the knowledge economy. The most effective organizations I studied provided forums to build networks and training in team skills, both of which bring critical areas of expertise and responsibility together. For example, Groupe Danone, the global food company, uses knowledge "marketplaces"—lively events that occur during company conferences—to encourage frontline managers to share best practices and to innovate by suggesting new processes and products. Simmons Bedding developed an extensive training system to develop employees' team skills, which helps them build relationships that foster collaboration within and across all of its plants.

Step 3: Collect process data. Execution-as-efficiency focuses on performance data, which capture what happened. Execution-as-learning pays just as much attention to process data, which describe how work unfolds. IHC, for example, recognized that physicians, as highly educated experts, might resist process guidelines developed by a committee. For that reason and others, IHC does not discourage doctors from deviating from the guidelines. In fact, the organization *invites* them to, anytime they judge that good patient care requires it. The only condition: They have to help IHC learn by entering into the computer what they did differently—and why. This valuable feedback is captured in the system and periodically used by the expert teams to make updates or refinements. Most of the time, the deviations help identify ways the guidelines could be made more precise by taking relevant patient differences into account. The fact that protocols are not hard-and-fast rules but are instead flexible made them acceptable to physicians. Likewise, the Cleveland Clinic created a formal Quality Institute to standardize measures and supervise the collection and analysis of both process and outcome data to help identify and then spread best practices. At Minnesota Children's Hospitals, data on both adverse events and close calls are captured as inputs to the next stage of the learning process.

Step 4: Institutionalize disciplined reflection. The goal of collecting process data is to understand what goes right and what goes wrong, and to prevent failures from recurring. At IHC, teams of experts periodically analyze data collected during clinical activities. Often, these analyses suggest improvements to the guidelines, which are then integrated into the design of future processes. At the Cleveland Clinic, teams of physicians drawn from hospitals all over the system study process data and identify areas for improvement throughout the organization's many sites. By 2006, the Clinic had seven such teams, including heart failure, stroke, diabetes, and orthopedic surgery. Process data showed, for instance, that stroke patients treated at various sites at the Clinic had not always received a blood thinner within the three-hour window that research identified as the standard of care. An analysis of patient outcomes helped to make the blood-thinner treatment the standard of stroke care for all Cleveland Clinic hospitals. As a result of this disciplined reflection, the hospitals doubled their use of the blood thinner and reduced complications from stroke by 50%. Similarly, at Children's, unit-based safety action teams meet regularly to reflect on what they are learning about identifying hazards that can pose risks to their vulnerable young patients.

It's not easy for a hospital, or any other organization facing cost constraints, to do this. Disciplined reflection takes productive resources off-line, and conventional management wisdom can't help but see this as lost productivity. Nonetheless, the only way to achieve and sustain excellence is for leaders to insist that their organizations invest in the slack time and resources that support this step.

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I do not mean to imply that old-style execution-as-efficiency must always go by the wayside. Obviously, there are workplaces—call centers, fast-food restaurants, manufacturing plants—where doing things better and faster than the competition is critical. But even in such

When people know their ideas are welcome, they will offer innovative ways to lower costs.

organizations, employees must learn if they are to improve. In work environments characterized by fear, the four steps described above become difficult, if not impossible, to follow.

Fostering an atmosphere in which trust and respect thrive, and flexibility and innovation flourish, pays off in most settings, even the most deadline driven. When managers empower, rather than control; when they ask the right questions, rather than provide the right answers; and when they focus on flexibility, rather than insist on adherence, they move to a higher form of execution. And when people know their ideas are welcome, they will offer innovative ways to lower costs and improve quality—thus laying a more solid foundation for their organization's success.

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Further Reading

ARTICLES

Building a Learning Organization
by David A. Garvin
Harvard Business Review
July 1993
Product no. 93402

In this classic article on organizational learning, Garvin identifies the five practices characterizing organizations that excel at learning: 1) *Solving problems systematically* by generating hypotheses, gathering data to test them, and using statistical tools to draw inferences. 2) *Using small experiments* to produce incremental gains in knowledge. 3) *Learning from past experience* by reviewing successes and failures, identifying lessons learned, and recording those lessons in accessible forms. 4) *Learning from others* by looking outside the immediate environment (for example, to customers and to other companies) to gain new perspectives. 5) *Transferring knowledge* by moving experts to different parts of the company so they can share the wealth.

Is Yours a Learning Organization?
by David A. Garvin, Amy C. Edmondson, and Francesca Gino
Harvard Business Review
March 2008
Product no. R0803H

The authors provide a tool for assessing your company's performance on the three building blocks of organizational learning: 1) *A supportive learning environment* where employees feel safe disagreeing with others, asking naive questions, owning up to mistakes, and presenting minority viewpoints. In such an environment, people see the value of opposing ideas, take risks, and explore the unknown. 2) *Concrete learning processes* for generating, collecting, interpreting, and disseminating information; for experimenting with new offerings; for gathering intelligence on competitors, customers, and technological trends; and for developing employees' skills. 3) *Leaders who reinforce learning* by demonstrating willingness to entertain alternative viewpoints, signaling the importance of spending time on problem identification, knowledge transfer, and reflection; and engaging in active questioning and listening.

Speeding Up Team Learning
by Amy C. Edmondson, Richard Bohmer, and Gary P. Pisano
Harvard Business Review
October 2001
Product no. R0109J

This article focuses on the collaborative decision making so crucial to execution-as-learning, using cardiac surgery as an example. In cardiac surgery, team leaders must not simply execute existing processes efficiently; they have to implement new processes as quickly as possible. The authors explain how surgical teams at 16 major medical centers implemented a difficult new procedure for performing cardiac surgery. The most successful teams had leaders who actively managed the groups' learning efforts. Teams that most successfully implemented the new technology shared three essential characteristics: 1) They were designed for learning. 2) Their leaders framed the challenge so that team members were highly motivated to learn. 3) An environment of psychological safety fostered communication and innovation.

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