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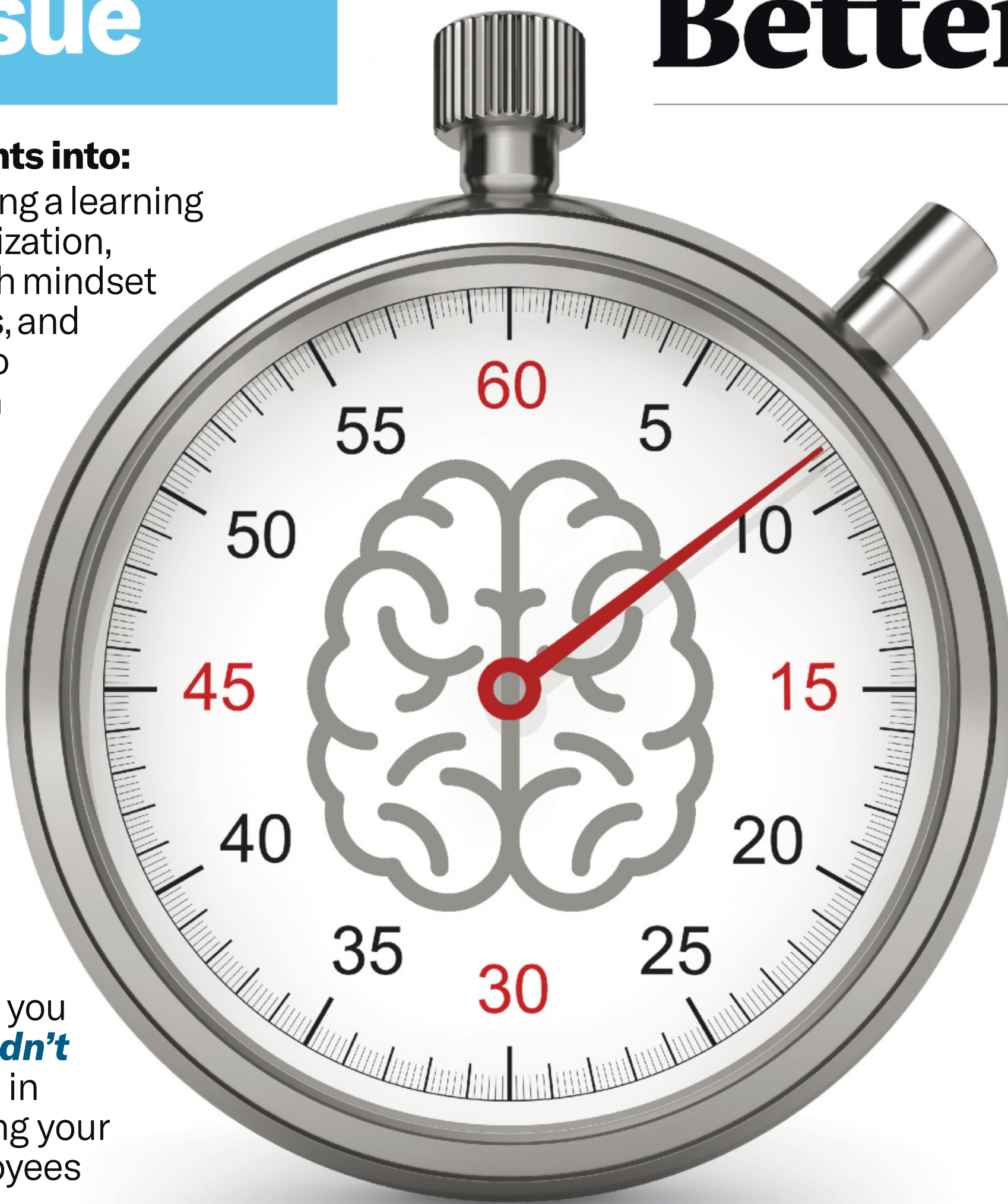


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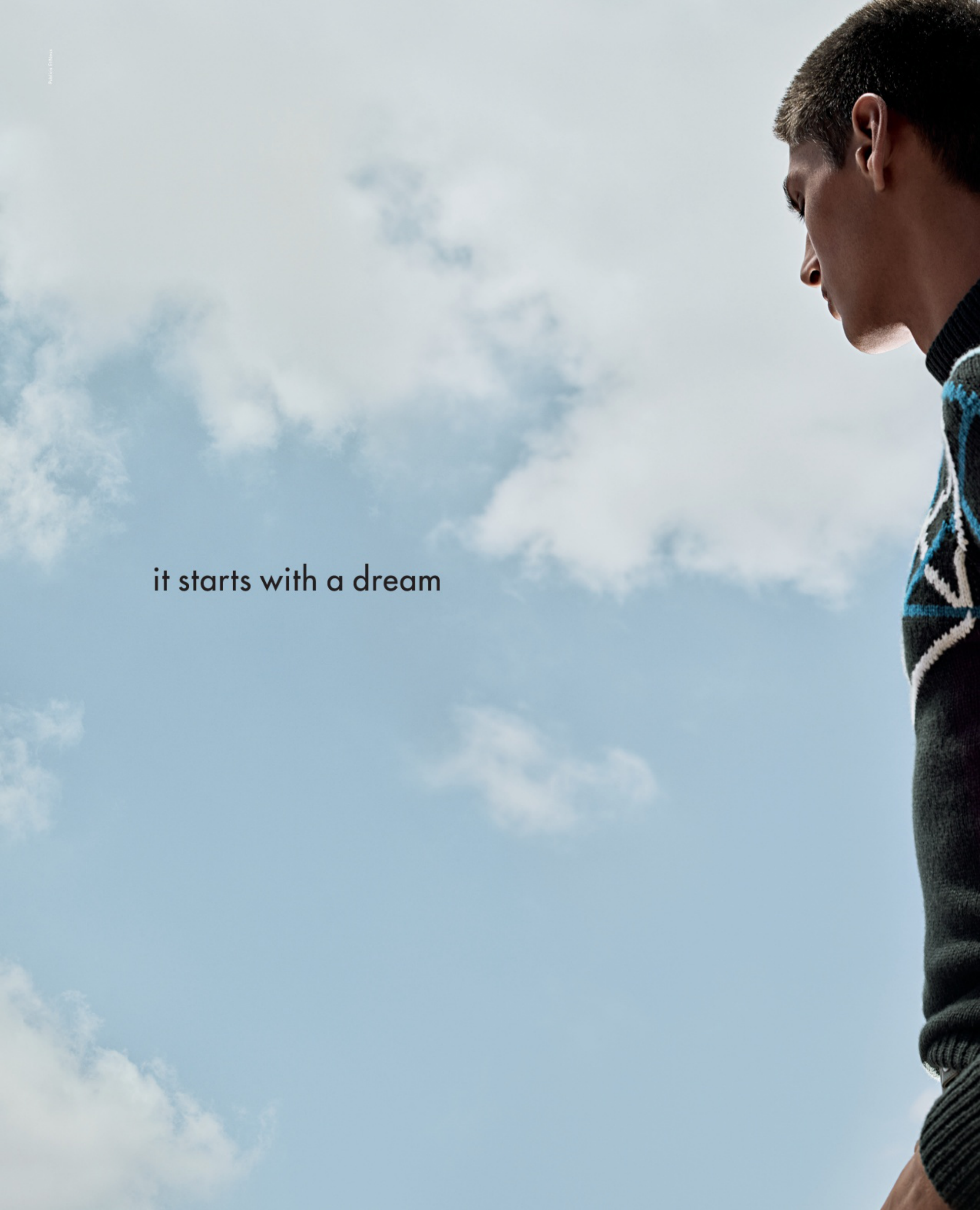


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# Stay Ahead of the Curve

THE MOST COMPETITIVE companies have mastered the challenges of a fast-changing business environment. New technologies and business models continually place ever-evolving demands on every employee. The most important skill for the future? The ability to learn.

Begin your own transformation by developing the right mentality In "What Having a 'Growth Mindset' Actually Means," Carol Dweck corrects common—and pernicious—myths about her popular concept. Understanding your own beliefs about whether you can improve can show you what stands in the way of all your self-development efforts. To master more-specific skills, a clear process can help: Partner with others to observe and practice what they do, as Dorothy Leonard and her coauthors explain in "Make Yourself an Expert."

If it feels like you don't have time for learning, know that research has shown that developing a new skill or taking on an intellectual challenge actually makes people feel *less* overwhelmed, according to Chen Zhang and her coauthors ("To Cope with Stress, Try Learning Something New").

Great managers play a central role in their employees' development. The best leaders coach their teams on everything from how to run a meeting to fundamental life lessons. They take charge when the team needs to adopt a new technology or process. Employees don't always respond well to these learning interventions, though. Chris Argyris shows managers how to move beyond the psychological barriers of high performers in his classic article "Teaching Smart People How to Learn."

Companies pursuing continuous learning have the opportunity to scale these efforts—if they can overcome a number of obstacles. Biases against failure and inaction are endemic to organizations, and most lack effective measures of employees' skill development. To build a learning organization, Francesca Gino and Bradley Staats write, leaders must change both culture and tactics: destigmatizing failure, using data to understand its causes, and believing that their people can adapt and grow ("Why Organizations Don't Learn").

Our companies and jobs will change radically in the coming years. Building learning muscles now is the best way to prepare.

***– The Editors***

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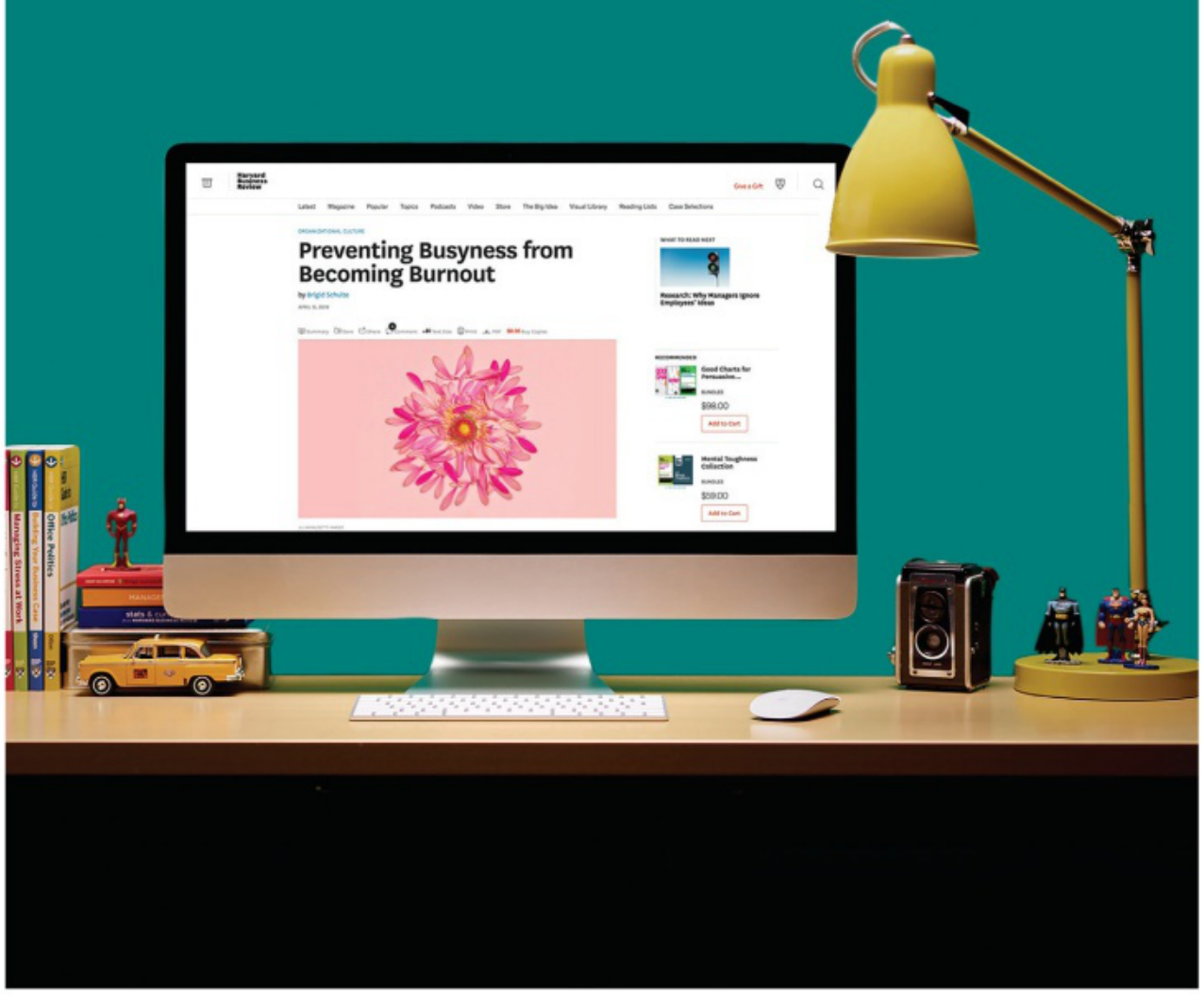


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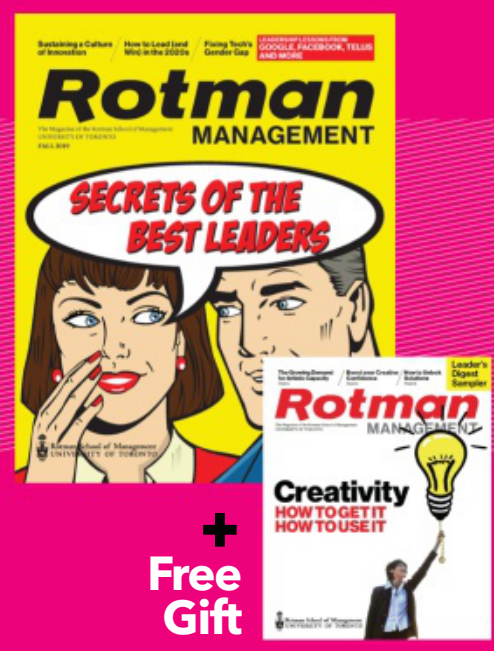


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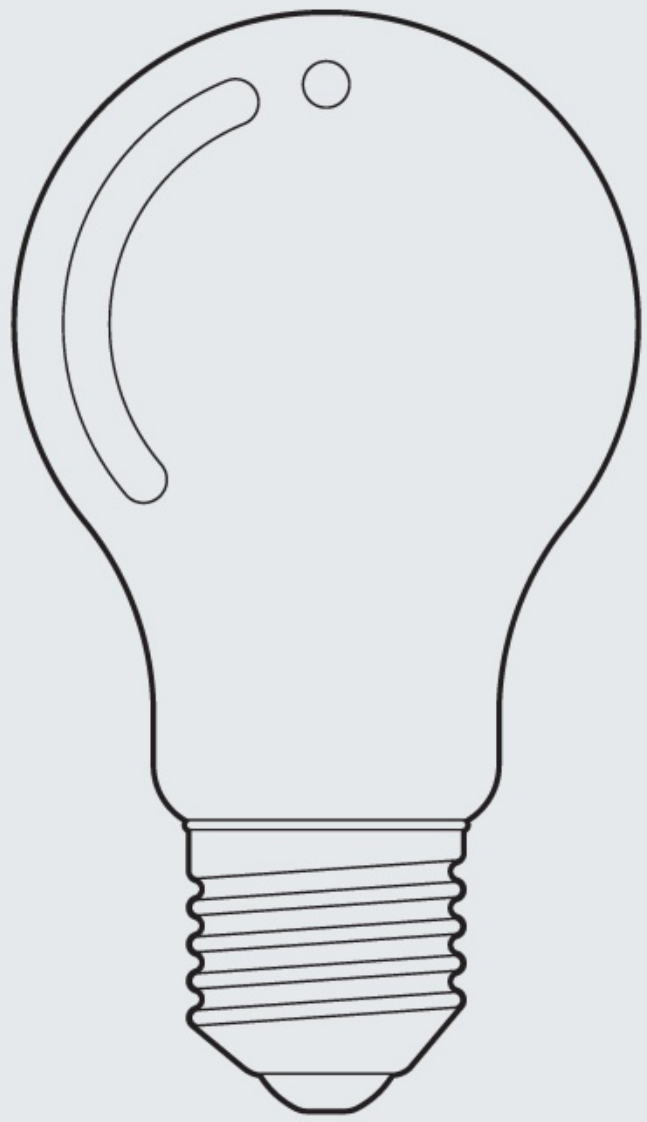

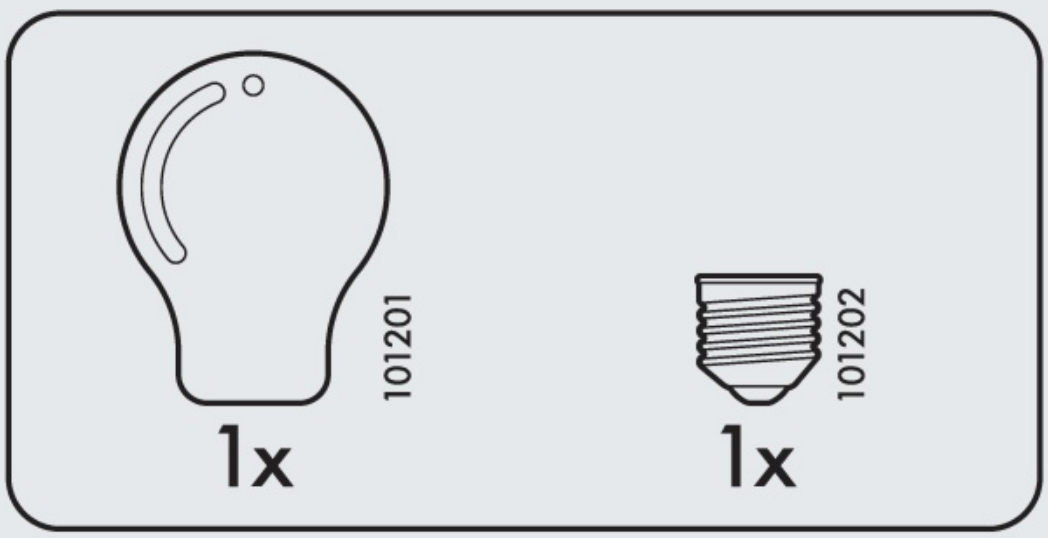


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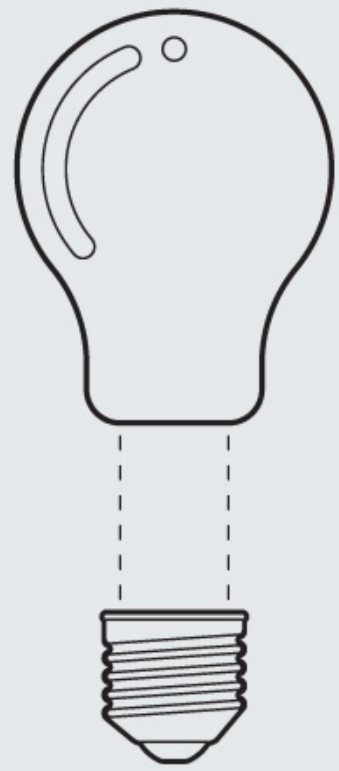

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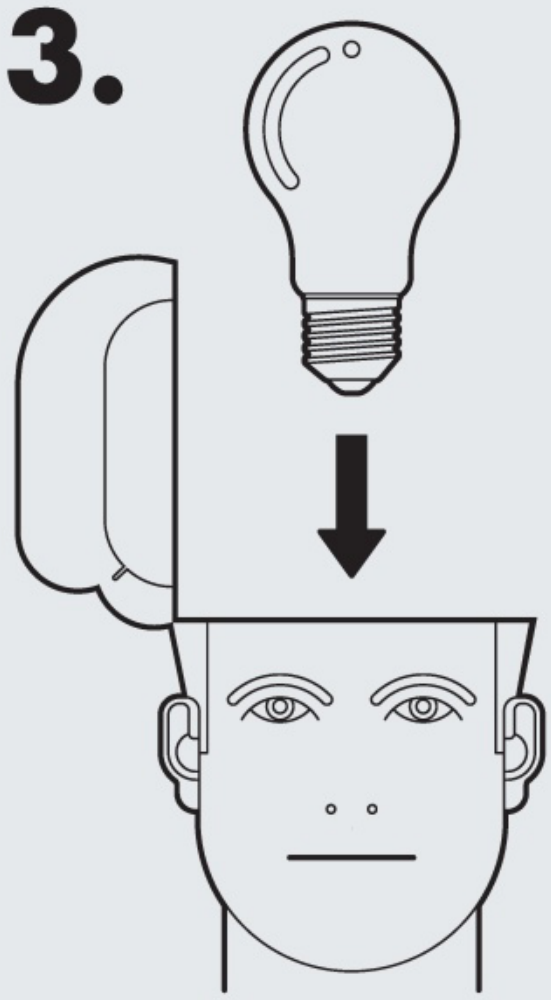

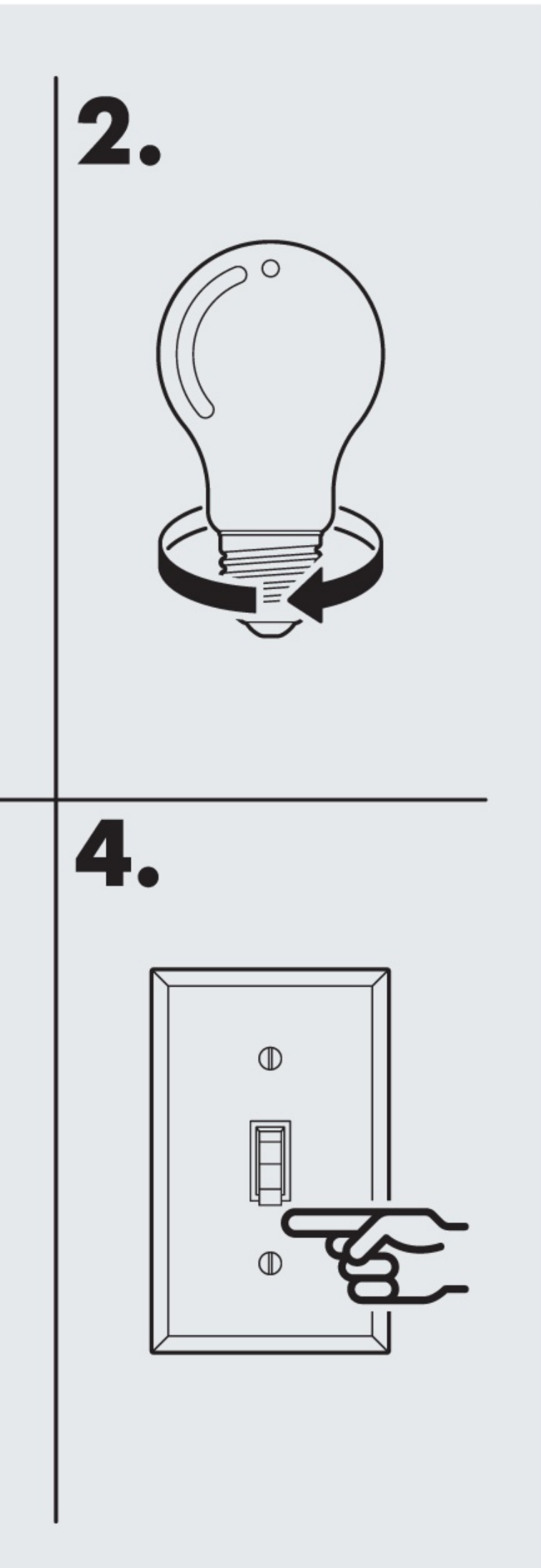


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# Learning to Learn

## Mental tools to help you master new skills

→ by ERIKA ANDERSEN

ORGANIZATIONS TODAY are in constant flux. Industries are consolidating, new business models are emerging, new technologies are being developed, and consumer behaviors are evolving. For executives, the ever-increasing pace of change can be especially demanding. It forces them to understand and quickly respond to big shifts in the way companies operate and how work must get done. In the words of Arie de Geus, a business theorist, "The ability to learn faster than your competitors may be the only sustainable competitive advantage."

I'm not talking about relaxed armchair or even structured classroom learning. I'm talking about resisting the bias against doing new things, scanning the horizon for growth opportunities, and pushing yourself to acquire radically different capabilities—while still performing your job. That requires a willingness to experiment and become a novice again and again: an extremely discomforting notion for most of us.

Over decades of coaching and consulting to thousands of executives in a variety of industries, however, my colleagues and I have come across people who succeed at this kind of learning. We've identified four attributes they have in spades: aspiration, self-awareness, curiosity, and vulnerability. They truly want to understand and master new skills; they see themselves very clearly; they constantly think of and ask good questions; and they tolerate their own mistakes as they move up the learning curve.

Of course, these things come more naturally to some people than to others. But, drawing on research in psychology and management as well as our work with clients, we have identified some fairly simple mental tools anyone can develop to boost all four attributes—even

*Illustration by* **PÂTÉ**

those that are often considered fixed (aspiration, curiosity, and vulnerability).

## Aspiration

It's easy to see aspiration as either there or not: You want to learn a new skill or you don't; you have ambition and motivation or you lack them. But great learners can raise their aspiration level—and that's key, because everyone is guilty of sometimes resisting development that is critical to success.

Think about the last time your company adopted a new approach—overhauled a reporting system, replaced a CRM platform, revamped the supply chain. Were you eager to go along? I doubt it. Your initial response was probably to justify not learning. (*It will take too long. The old way works just fine for me. I bet it's just a flash in the pan.*) When confronted with new learning, this is often our first roadblock: We focus on the negative and unconsciously reinforce our lack of aspiration.

When we *do* want to learn something, we focus on the positive—what we'll gain from learning it—and envision a happy future in which we're reaping those rewards. That propels us into action. Researchers have found that shifting your focus from challenges to benefits is a good way to increase your aspiration to do initially unappealing things. For example, when Nicole Detling, a psychologist at the University of Utah, encouraged aerialists and speed skaters to picture themselves benefiting from a particular skill, they were much more motivated to practice it.

A few years ago I coached a CMO who was hesitant to learn about big data. Even though most of his peers were becoming converts, he'd convinced himself that he didn't have the time to get into it and that it wouldn't be that important to his industry. I finally realized that this was an aspiration problem and encouraged him to think of ways that getting up to speed on data-driven marketing could help him personally. He acknowledged that it would be useful to know more about how various segments of his customer base were responding to his team's online advertising and in-store marketing campaigns. I then invited him to imagine the situation he'd be in a year later if he was getting that data. He started to show some excitement, saying, "We would be testing different approaches simultaneously, both in-store and online; we'd have good, solid information about which ones were working and for whom; and we could save a lot of time and money by jettisoning the less effective approaches faster." I could almost feel his aspiration rising. Within a few months he'd hired a data analytics expert, made a point of learning from her on a daily basis, and begun to rethink key campaigns in light of his new perspective and skills.

## Self-Awareness

Over the past decade or so, most leaders have grown familiar with the concept of self-awareness. They understand that they need to solicit feedback and recognize how others see them. But when it comes to the need for learning, our assessments of ourselves—what we know and don't know, skills we have and don't have—can still be woefully inaccurate. In one study conducted by David Dunning, a Cornell University psychologist, 94% of college professors reported that they were doing "above average work." Clearly, almost half were wrong—many extremely so—and their self-deception surely diminished any appetite for development. Only 6% of respondents saw themselves as having a lot to learn about being an effective teacher.

In my work I've found that the people who evaluate themselves most accurately start the process inside their own heads: They accept that their perspective is often biased or flawed and then strive for greater objectivity, which leaves them much more open to hearing and acting on others' opinions. The trick is to pay attention to how you talk to yourself about yourself and then question the validity of that "self-talk."

Let's say your boss has told you that your team isn't strong enough and that you need to get better at assessing and developing talent. Your initial reaction might be something like *What? She's wrong. My team is strong.* Most of us respond defensively to that sort of criticism. But as soon as you recognize what you're thinking, ask yourself, *Is that accurate? What facts do I have to support it?* In the process of reflection you may discover that you're wrong and your boss is right, or that the truth lies somewhere in between—you cover for some of your reports by doing things yourself, and one of them is inconsistent in meeting deadlines; however, two others are stars. Your inner voice is most useful when it reports the facts of a situation in this balanced way. It should serve as a "fair witness" so that you're open to seeing the areas in which you could improve and how to do so.

One CEO I know was convinced that he was a great manager and leader. He

**Researchers have found that shifting your focus from challenges to benefits is a good way to increase your aspiration to do initially unappealing things.**

did have tremendous industry knowledge and great instincts about growing his business, and his board acknowledged those strengths. But he listened only to people who affirmed his view of himself and dismissed input about shortcomings; his team didn't feel engaged or inspired. When he finally started to question his assumptions (*Is everyone on my team focused and productive? If not, is there something I could be doing differently?*), he became much more aware of his developmental needs and open to feedback. He realized that it wasn't enough to have strategic insights; he had to share them with his reports and invite discussion, and then set clear priorities—backed by quarterly team and individual goals, regular progress checks, and troubleshooting sessions.

## Curiosity

Kids are relentless in their urge to learn and master. As John Medina writes in *Brain Rules,* "This need for explanation is so powerfully stitched into their experience that some scientists describe it as a drive, just as hunger and thirst and sex are drives." Curiosity is what makes us try something until we can do it, or think about something until we understand it. Great learners retain this childhood drive, or regain it through another application of self-talk. Instead of focusing on and reinforcing initial disinterest in a new subject, they learn to ask themselves "curious questions" about it and follow those questions up with actions. Carol Sansone, a psychology researcher, has found, for example, that people can increase their willingness to tackle necessary tasks by thinking about how they could do the work differently to make it more interesting. In other words, they change their self-talk from *This is boring* to *I wonder if I could...?*

You can employ the same strategy in your working life by noticing the language you use in thinking about things that already interest you—*How...? Why...? I wonder...?*—and drawing on it when you need to become curious. Then take just one step to answer a question you've asked yourself: Read an article, query an expert, find a teacher, join a group—whatever feels easiest.

I recently worked with a corporate lawyer whose firm had offered her a bigger job that required knowledge of employment law—an area she regarded as "the single most boring aspect of the legal profession." Rather than trying to persuade her otherwise, I asked her what she was curious about and why. "Swing dancing," she said. "I'm fascinated by the history of it. I wonder how it developed, and whether it was a response to the Depression—it's such a happy art form. I watch great dancers and think about why they do certain things."

I explained that her "curious language" could be applied to employment law. "I wonder how anyone could find it interesting?" she said jokingly. I told her that was actually an OK place to start. She began thinking out loud about possible answers ("Maybe some lawyers see it as a way to protect both their employees and their companies...") and then proposed a few other curious questions ("How might knowing more about this make me a better lawyer?").

Soon she was intrigued enough to connect with a colleague who was experienced in employment law. She asked

### Idea in Brief

**THE CHALLENGE**

The fast pace of change in today's organizations means executives must understand and quickly respond to big shifts in how their companies operate and how work must get done. Executives must constantly scan for growth opportunities and be willing to learn new things—to become a novice over and over again—which many find an extremely discomforting notion.

**THE SOLUTION**

People who succeed at this have four well-developed attributes: aspiration, self-awareness, curiosity, and vulnerability. If you don't already have the traits to be an effective learner, you can develop them by using fairly simple mental tools, like figuring out what you will personally gain from learning a new skill; changing your inner narrative from unsupportive to supportive self-talk; and asking yourself "curious" questions (followed by taking action).

## Changing Your Inner Narrative

| Unsupportive Self-Talk | | Supportive Self-Talk |
|---|---|---|
| I don't need to learn this. | → | What would my future look like if I did? |
| I'm already fine at this. | → | Am I really? How do I compare with my peers? |
| This is boring. | → | I wonder why others find it interesting. |
| I'm terrible at this. | → | I'm making beginner mistakes, but I'll get better. |

him what he found interesting about it and how he had acquired his knowledge, and his answers prompted other questions. Over the following months she learned what she needed to know for that aspect of her new role.

The next time you're asked to learn something at the office, or sense that you should because colleagues are doing so, encourage yourself to ask and answer a few curious questions about it—*Why are others so excited about this? How might this make my job easier?*—and then seek out the answers. You'll need to find just one thing about a "boring" topic that sparks your curiosity.

### Vulnerability

Once we become good or even excellent at some things, we rarely want to go back to being *not* good at other things. Yes, we're now taught to embrace experimentation and "fast failure" at work. But we're also taught to play to our strengths. So the idea of being bad at something for weeks or months; feeling awkward and slow; having to ask "dumb," "I-don't-know-what-you're-talking-about" questions; and needing step-by-step guidance again and again is extremely scary. Great learners allow themselves to be vulnerable enough to accept that beginner state. In fact, they become reasonably comfortable in it—by managing their self-talk.

Generally, when we're trying something new and doing badly at it, we think terrible thoughts: *I hate this. I'm such an idiot. I'll never get this right. This is so frustrating!* That static in our brains leaves little bandwidth for learning. The ideal mindset for a beginner is both vulnerable and balanced: *I'm going to be bad at this to start with, because I've never done it before. AND I know I can learn to do it over time.* In fact, the researchers Robert Wood and Albert Bandura found in the late 1980s that when people are encouraged to expect mistakes and learn from them early in the process of acquiring new skills, the result is "heightened interest, persistence, and better performance."

I know a senior sales manager from the United States who was recently tapped to run the Asia-Pacific region for his company. He was having a hard time acclimating to living overseas and working with colleagues from other cultures, and he responded by leaning on his sales expertise rather than acknowledging his beginner status in the new environment. I helped him recognize his resistance to being a cultural novice, and he was able to shift his self-talk from *This is so uncomfortable—I'll just focus on what I already know* to *I have a lot to learn about Asian cultures. I'm a quick study, so I'll be able to pick it up.* He told me it was an immediate relief: Simply acknowledging his novice status made him feel less foolish and more relaxed. He started asking the necessary questions, and soon he was seen as open, interested, and beginning to understand his new environment.

THE ABILITY TO ACQUIRE new skills and knowledge quickly and continually is crucial to success in a world of rapid change. If you don't currently have the aspiration, self-awareness, curiosity, and vulnerability to be an effective learner, these simple tools can help you get there.

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***Erika Andersen*** *is the founding partner of Proteus International and the author of* Growing Great Employees, Being Strategic, Leading So People Will Follow, *and* Be Bad First.

18+

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# Make Yourself an Expert

## How to pull knowledge from the smartest people around you

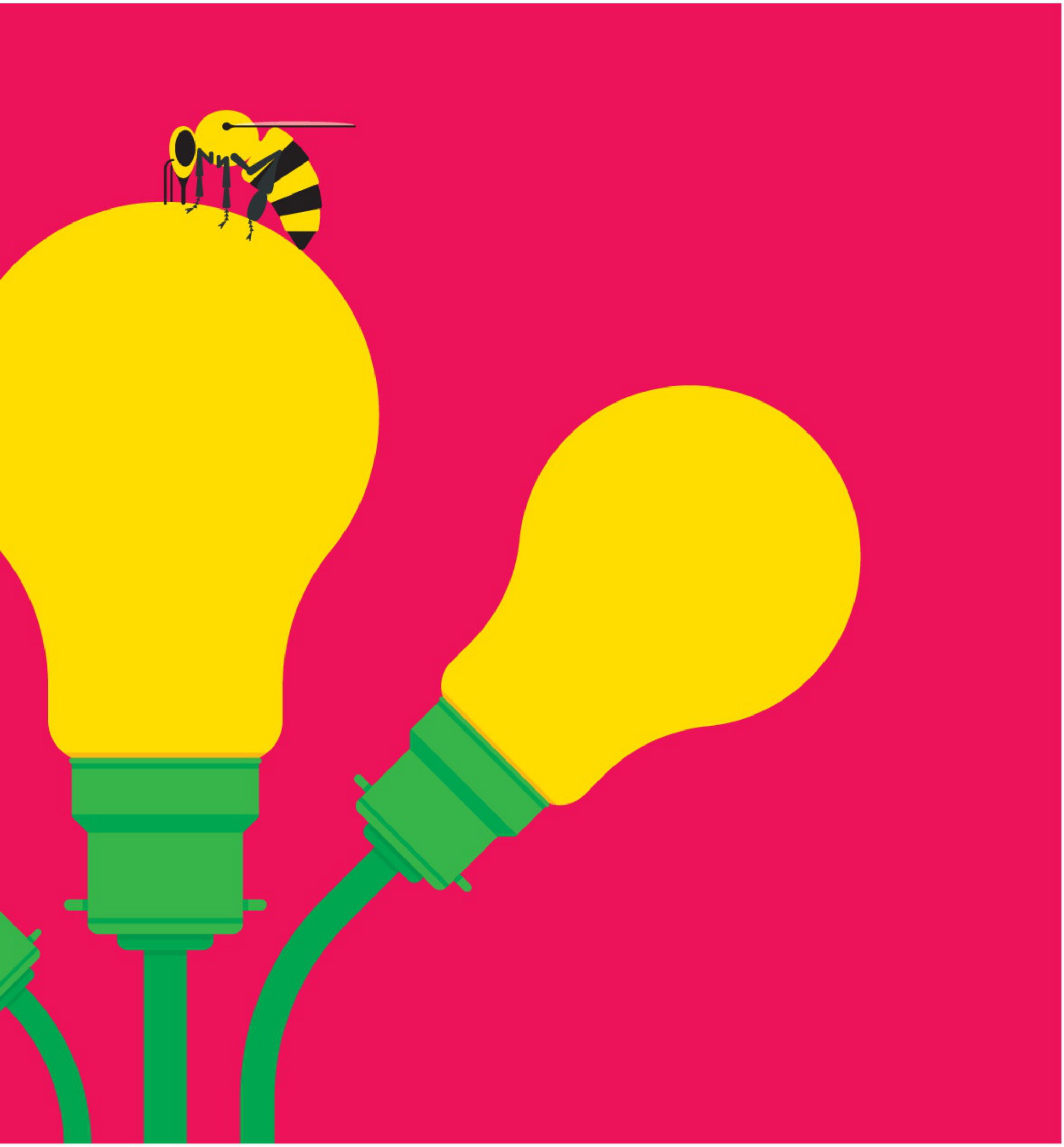
→ by DOROTHY LEONARD, GAVIN BARTON, and MICHELLE BARTON

I DON'T KNOW what we'd do without him!" That's what an executive in a *Fortune* 100 company recently told us about a brilliant project leader. We've heard the same sentiment expressed about many highly skilled specialists during the hundred-plus interviews we've conducted as part of our research into knowledge use and sharing. In organizations large and small, including NASA, the U.S. Forest Service, SAP, and Raytheon, managers spoke of their dependence on colleagues who have "deep smarts"—business-critical expertise, built up through years of experience, which helps them make wise, swift decisions about both strategy and tactics. These mavens may be top salespeople, technical wizards, risk managers, or operations troubleshooters, but they are all the "go-to" people for a given type of knowledge in their organizations.

Because deep smarts are mostly in experts' heads—and sometimes people don't even recognize that they possess



*Illustration by* **PÂTÉ**



them—they aren't all that easy to pass on. This is a serious problem, both for the organization and for those who hope to become experts themselves. Several professions build apprenticeships into their training systems. Doctors, for instance, learn on the job as interns and residents, under the close guidance of attending physicians, before practicing on their own. But the management profession has no such path. You're responsible for your own development. If you wish to become a go-to person in your organization but don't have the time or opportunity to accumulate all the experience of your predecessors, you must acquire the knowledge in a different way. The purpose of this article is to help you do just that.

## A Rare Asset

Deep smarts are not merely facts and data that anyone can access. They consist of know-how: skilled ways of thinking, making decisions, and behaving that lead to success again and again. Because they are typically experience-based, deep smarts take time to develop. They are often found in only a few individuals. They are also frequently at risk. Baby boomers—some of whom have knowledge vital to their companies—are retiring in droves. And even in organizations where key experts are years from retiring, there are often only a few people with deep smarts in certain areas. If they're hired away or fall ill, their knowledge could be lost. In some fields, rapid growth or geographic expansion creates a sudden need for expertise that goes far beyond employees' years of experience. Whatever the cause, the loss or scarcity of deep smarts can hurt the bottom line when deadlines are missed, a customer is alienated, or a process goes awry.

This potential loss to the organization is an opportunity for would-be experts. Deep smarts can't be hired off the street or right out of school. High-potential employees who prove their ability to quickly and efficiently acquire expertise will find themselves in great demand.

So how do you acquire deep smarts? By consciously thinking about how the experts in your organization operate and deliberately learning from them. Of course, you can't—and don't want to—become a carbon copy of another person. Deeply smart people are unique—a product of their particular mind-set, education, and experience. But you should be able to identify the elements of their knowledge and behavior that make them so valuable to the organization. For example, a colleague of the expert project leader mentioned earlier described him as an exceptional manager who could effortlessly solve any technical problem and always got the best out of his people. Initially, the colleague said he didn't know how the guy did it. But, in fact, with some prodding, he could tell us that the project leader motivated his team members by matching their roles to their interests, offering them opportunities to present to clients, and taking personal responsibility for shortfalls and mistakes, while giving others credit for progress. On the technical front, the project leader used certain identifiable diagnostic questions to understand complex issues.

The admiring colleague could have recorded and mimicked these behaviors—but he didn't. One reason, of course, is that the expert himself had never articulated his approach to project leadership. He simply recognized patterns from experience and applied solutions that had worked well in the past. It was second nature to him, like managerial muscle memory. The second stumbling block was that the colleague was accustomed to having people "push" expertise to him. That's how school and formal management-development programs work. But in today's competitive work world, that model isn't sufficient. You can't count on companies or mentors to equip you with the skills and experience you need. You must learn how to "pull" deep smarts from others.

## The Right System

Let's look at a specific case, a composite drawn from the many executives we've helped to attain deep smarts:

Melissa has been with a large international beer company for more than eight years, having previously worked in a retail outlet that sold its products. She is currently a sales representative, but she has her eye on a regional VP position. In thinking about how to become more valuable to her organization (indeed, to any beverage company), she considers which in-house experts she would like to emulate. George, a general manager who has risen through the ranks from sales, is known as a smart decision maker, an outstanding negotiator, and an innovator. His colleagues say he has a remarkable ability to think both strategically and tactically about the entire business, from the brewery to the consumer, and that he balances a passion for data

with in-depth talks with people in the field. In short, he would be an excellent role model.

Not everything George knows is equally valuable, of course. And Melissa does have some expertise of her own. She doesn't want to emulate George in every way. But she wishes she had his ability to evaluate, work with, and motivate the distributors who serve as the company's conduit to retailers and, ultimately, to consumers. George knows a lot about distributors because he used to work for them; he started out driving a delivery truck and made his way up the ladder before being hired by the beer company. Still, Melissa isn't going to work for a distributor; nor would it be necessary for her to experience everything George has. What she needs is to unearth the essential skills that make him so effective with distributors, internalize his insights, and mimic his critical behaviors.

Fortunately, George is willing to share his deep smarts with Melissa, but he has neither the time nor the inclination to make her training a priority. So it's up to Melissa to figure out how to learn from him. She can take two approaches, which are not mutually exclusive. She can interview George and get him to tell her stories that will provide vicarious experiences. Would-be experts who don't work alongside their role models typically need to rely on this approach. If Melissa is good at questioning, and George is able to articulate much of his knowledge, she will learn a lot. George might tell her, for instance, the story of how he first discovered the power of sales data to persuade retail store managers to display his brand of beer more prominently.

This process has limits, however. George can't tell Melissa everything he knows, because much of his wisdom is unconscious; he doesn't think about it until a particular situation calls for it. Moreover, he's often unaware of the communication style, diagnostic patterns, and body language that he uses.

How can Melissa learn these things? Through a process we call OPPTY, which stands for **o**bservation, **p**ractice, **p**artnering and joint problem solving, and **t**aking responsibili**ty**. Observation involves shadowing an expert and systematically analyzing what he or she does. Practice requires identifying a specific expert behavior or task that you can attempt on your own, but with supervision and feedback. Partnering and joint problem solving mean actively working with the expert to analyze and address challenges. Finally, when you're ready, you can take over a significant part of the expert's role. Along the way, you should deliberately reflect on each experience and internalize as much as possible.

When Melissa asks George to help her, she's careful to frame his doing so as an opportunity for both of them, since having another distribution expert at the company will mean he'll have more time to handle other issues. She also promises to structure the knowledge sharing so that it minimizes the disruption to his heavily packed schedule.

Next, she creates an action plan that outlines her near-term and ultimate goals and the steps required to achieve them, along with suggested deadlines. (See the exhibit "Tools for Building Deep Smarts.") George, and possibly his boss, will need to sign off on it.

## Idea in Brief

Organizations rely on them—go-to people with deep smarts: business-critical expertise that facilitates wise and swift strategic and tactical decisions, the result of years of experience. Most of that knowledge is in experts' heads, posing a problem for the organization that loses its go-to and for anyone who wants to become the go-to without putting in all that time.

To become indispensible, the authors advise that you unearth from the expert the essential skills that make this person effective. But that will get you only so far, as experts are not always aware of their skills. To help "pull" deep smarts from another, follow the OPPTY process: **o**bservation, **p**ractice, **p**artnering and joint problem solving, and **t**aking responsibili**ty**.

This method works best with close proximity and training. But, as the U.S. Army has shown, it can also be used effectively to transfer expertise across distances and when there are time constraints.

# Tools for Building Deep Smarts

## Action Plan

Becoming an expert begins with deciding whom you will acquire knowledge from and how. Here is an excerpt from a step-by-step plan drawn up by Melissa, a high-potential sales rep in the beverage industry who aspires to become her firm's in-house whiz at distribution. Her chosen mentor is George, a general manager at her company who is the "go-to" guy in that area.

### Observation

Immediate Goal (*2 Months*)
Learn how to evaluate distributors by studying retail stores they service.

To-Do
Visit five stores with George, and record what he notices.

### Practice

Short-term Goal (*6 Months*)
Learn how to evaluate our firm's performance from the distributors' point of view.

To-Do
Interview three distributors in region, asking about three things we do better and three things we do worse than competitors.

### Partner & Problem Solve

Midterm Goal (*12 Months*)
Be able to diagnose problems with distributors where our sales are down, and suggest solutions.

To-Do
Analyze data from problem region, and visit stores there. With George, visit underperforming distributors; then help him formulate a plan for addressing.

### Take Responsibility

Ultimate Goal (*24 Months*)
Be considered a go-to person for issues with distributors.

To-Do
Take the lead on resolving conflicts between distributors and our company, and let George become the backup.

## Learning Log

As she puts her plan into effect, Melissa codifies her new knowledge in notes, which she later reviews and discusses with George.

### February 2011

Visit to five retail stores with George.

What happened
Looked at product position in coolers, and percentage of our product there, pricing, and promotions vs. the competition. George rearranged products in the cooler! Cited stats about positioning when manager protested, and manager gave in.

Insights
Store is a lens into how good the distributor is; George paid close attention to small details. See why we must go out into the field frequently—this was a good seller but could still improve.

### August 2011

Visit to Kevan Wine & Beer, a distributor.

What happened
George led off: Small talk, discussion of industry trends (puts guy at ease). Then he let me ask questions.

Insights
We have the best price points, but our ads and promotions are not as good as the competitors'.

Distributor gave good feedback; could we institutionalize collecting it quarterly? Maybe build better feedback loop to ad agencies?

Distributor mentioned best-selling outlet in vicinity; I should visit and find out why it's doing so well.

### March 2012

Interview of bottom three distributors in Midwest.

What happened
Distributor complains that we're creating minor brands on rigid schedules, causing stockouts or oversupply (and expiration of "sell by" dates).

Insights
Possible to schedule smaller but more-frequent batches? Rigid scheduling has ripple effect on distribution, from warehousing to delivery and merchandising in stores.

Maybe top distributors have way to handle this that these underperformers don't. Need to explore by visiting more distributors and interviewing sales reps.

### April 2013

Creation of a task force on competing with microbreweries and craft beers. I'm the distributor liaison on this!

What happened
Visited our distributors who are also dealing with craft beers.

Insights
Our distributors aren't good at handling so many product lines in their warehouses. Our traditional lines are suffering from less attention.

Two possible options:

**1.** Help distributors move more swiftly into better automated warehouse processes.

**2.** Push for more-exclusive contracts, so distributors handle only national brands—not craft beers.

Need to investigate economics and feasibility of those solutions.

As she goes along, Melissa notes what she has learned in a log. It's tempting to think this is unnecessary work, because we all remember very well what we've observed or done, and we assume we understand why experts behave as they do. Keeping a log forces you to check those assumptions. It serves as an accurate record of progress (allowing for the reevaluation of goals if need be) and ensures you've learned what you and the expert intended. You'll want to ask yourself questions like, What was the context of the situation? What did the expert do, and why did he do it? What did I do, and what feedback did I get? What worked? What didn't? What should I do next?

In the observation phase, Melissa accompanies George on his regular visits to retail stores. This takes no additional time or effort on his part but is an eye-opener for her. Before they enter the first site, George challenges her: What in the store would indicate that a top-notch distributor is serving it? She sees that he pays close attention to details such as the positioning of products in coolers, pricing relative to competitors, and even how prices are displayed. Melissa also listens when George talks with distributors, noticing how careful he is to speak about the broad advantages of suggested changes and to ask probing questions about operations—for example, about what incentives salespeople are given. His body language suggests empathy; he leans forward and listens intently.

After a couple of months, Melissa is ready to move on to practice what she's picked up from George. A few months after that, she begins to solve problems jointly with him. When George asks her to help analyze why a particular sales region has high sales volume but very low margins, she sees how useful it is to juxtapose data analysis with visits to the field. She watches George reject a distributor's insistence on sticking with an unsuccessful strategy because it's "just the way it's always been done" and helps him brainstorm three alternative strategies for the distributor. When she reviews the learning log with George, he often comments that he rarely thinks about why he does what he does—but he agrees with her analysis.

You'll note that Melissa has both the motivation and the discipline to persevere in learning—vital requirements for this process. And George is happy to help her, which is more common among experts than you might think. Many of those we've interviewed are willing to share their knowledge—thanks to an intrinsic interest in coaching or because they have incentives to do so, such as a lightened workload, kudos from management, or the opportunity to build new knowledge and find new paths to innovation themselves.

## Guided Experience

The system we outline in this article works best when aspiring experts have both time to learn and geographic proximity to the masters who will train them. However, our methods can be applied across distances and compressed in time. The U.S. Army, for example, uses parts of this process to transfer knowledge from officers serving overseas to personnel about to be deployed to the same regions. The transfer of expertise need not be one-on-one, either. An individual can accrue deep smarts from more than one expert, and an expert can mentor more than one individual.

No matter how sophisticated current technologies for data capture and analysis are, we are still highly dependent upon human skills in many situations, and such skills are best learned from experts. There is an old saying: Good judgment comes from the experience of having made bad decisions. But we believe it's more effective and efficient to build expertise through experiences guided by the smart people around you. If you observe, practice, partner, and problem solve with them before taking responsibility on your own, you'll soon become as indispensable as they are.

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# Quick Takes

## 1. What Having a "Growth Mindset" Actually Means

→ by CAROL DWECK

SCHOLARS ARE DEEPLY gratified when their ideas catch on. And they are even more gratified when their ideas make a difference—improving motivation, innovation, or productivity, for example. But popularity has a price: People sometimes distort ideas and therefore fail to reap their benefits. This has started to happen with my research on "growth" versus "fixed" mindsets among individuals and within organizations.

To briefly sum up the findings: Individuals who believe their talents can be developed (through hard work, good strategies, and input from others) have a growth mindset. They tend to achieve more than those with a more fixed mindset (who believe their talents are innate gifts). This is because they worry less about looking smart and put more energy into learning. When entire companies embrace a growth mindset, their employees report feeling far more empowered and committed; they also receive greater organizational support for collaboration and innovation. In contrast, people at primarily fixed-mindset companies report more cheating and deception among employees, presumably to gain an advantage in the talent race.

"Growth mindset" has become a buzzword in many major companies, even working its way into their mission statements. But when I probe, I often discover that people have a limited understanding of the idea. Here are three common misconceptions:

**1. I already have, and have always had, a growth mindset.** People often confuse a growth mindset with being flexible or open-minded or having a positive outlook—qualities they believe they've always had. My colleagues and I call this a false growth mindset. Everyone actually has a mixture of fixed and growth mindsets, which continually evolves with experience. A pure growth mindset doesn't exist, which we must acknowledge to attain the benefits we seek.

**2. A growth mindset is just about praising and rewarding effort.** This isn't true for students in schools, and it's not true for employees in organizations. In both settings, outcomes matter. Unproductive effort is never a good thing. It's critical to reward not just effort but learning and progress, and to emphasize the processes that yield these things, such as seeking help from others, trying new strategies, and capitalizing on setbacks to move forward effectively. In all our research, the outcome—the bottom line—follows from deeply engaging in these processes.

**3. Just espouse a growth mindset, and good things will happen.** Mission statements are wonderful. You can't argue with lofty values like growth, empowerment, and innovation. But they are meaningless to employees if the company doesn't implement policies that make these values real and attainable. Organizations that embody a growth mindset encourage appropriate risk taking, knowing that some risks won't work out. They reward employees for important lessons learned, even if a project

ANDREW NGUYEN/HBR

doesn't meet its original goals. They support collaboration across organizational boundaries rather than competition among employees or units. They are committed to the growth of every member, not just in words but in deeds such as broadly available development and advancement opportunities. And they continually reinforce growth-mindset values with concrete policies.

Even if we correct these misconceptions, it's still not easy to attain a growth mindset. One reason is we all have our own fixed-mindset triggers. When we face challenges, receive criticism, or fare poorly compared with others, we can become insecure or defensive, which inhibits growth. Our work environments, too, can be full of fixed-mindset triggers. A company that plays the talent game makes it harder for people to practice growth-mindset thinking and behavior, such as sharing information, collaborating, innovating, seeking feedback, or admitting errors.

To remain in a growth zone, we must identify and work with these triggers. Many managers and executives have benefited from learning to recognize when their fixed-mindset "persona" shows up and what it says to make them feel threatened or defensive. Most important, over time they have learned to persuade it to collaborate with them as they pursue challenging goals.

It's hard work, but individuals and organizations can gain a lot by deepening their understanding of growth-mindset concepts and how to put them into practice. It gives them a richer sense of who they are, what they stand for, and how they want to move forward.

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# 2. Take Control of Your Learning at Work

→ by TOMAS CHAMORRO-PREMUZIC

HUMAN BEINGS HAVE an astonishing ability to learn, but our motivation to do so tends to decrease with age, particularly in adulthood. As children, we are naturally curious and free to explore the world around us. As adults, we are much more interested in preserving what we have learned, so we resist any information—and data—that challenges our views and opinions. Unsurprisingly, there is now big demand for employees who can demonstrate high levels of "learnability," the desire and ability to quickly grow and adapt one's skill set to remain employable throughout their working life. This demand has been turbocharged by the recent technological revolution.

Indeed, one of the major cultural and intellectual changes of the digital age is

**To acquire new expertise, focus on what you don't know rather than what you do know.**

that information has been commoditized, and access to it is now ubiquitous. With the right question (and Wi-Fi), we can all pretty much find the answer to anything, as long as we can judge if the answer is true—which in a world of fake news and dirty data is no small feat. The main career consequence of this is that knowledge and expertise have been devalued. What you know is now less relevant than what you can learn. Rather than hiring people with a particular expertise, employers want to hire people who can develop the right expertise in the future, particularly if they can do it consistently and across a wide range of roles.

Our interest in people who can learn how to learn is not new. More than a century ago, the French psychologist Alfred Binet, who pioneered the application of modern pedagogy and child development science to formal education, observed that "our first job was not to teach [the students] the things which seemed to us the most useful to them, but to teach them how to learn." Fast-forward to today and Binet's perspective is just as current.

When we can all retrieve the same information, the key differentiator is not access to data but the ability to make use of it. Ironically, a surplus of information can create a poverty of knowledge. It requires curiosity and a hungry mind to resist digital distractions and have the necessary discipline to learn. Unlike our evolutionary ancestors, who lived in a world of relatively low environmental stimulation where attending to novelty was rewarded, it is now more advantageous to ignore new information than to absorb it. Just like our evolved inclination to maximize caloric intake is no longer adaptive—but maladaptive—in a world of abundant and cheap fast food, our evolved predisposition to consume as much novel information as possible is no longer advantageous in the age of Facebook, Twitter, and clickbait news.

To make matters worse, today's jobs and careers often handicap our ability to learn. They demand that we reach consistent levels of high performance and attain results rather than broaden our skill set. Instead of promoting a learning culture, most employers obsess over results, expecting higher and higher levels of efficiency and performance, which can be the biggest barrier to curiosity and learning. To overcome this challenge, consider these four suggestions:

**1. Pick the right organization.** Most of us don't include "learning potential" as one of the key criteria when we choose a job, but we should. Of course, learning potential depends partly on your own personality—traits like learnability, curiosity, and openness to experience are key. Unsurprisingly, intelligence is also important. But regardless of these qualities, your propensity to learn will be strongly influenced by the type of job, career, and organization you pick. For example, research shows that enriching learning environments play a critical role in shaping our experiences and helping us develop new knowledge. Companies like Google, Unilever, and Edmunds.com have cultures that unlock employees' curiosity and reward their formal and informal learning. To create a learning culture, organizations must value psychological safety, diversity, openness to ideas, and reflection time, all of which can hinder short-term results.

**2. Set aside time for learning.** One of the biggest barriers to learning is time, particularly when you are focused on delivering top levels of performance. This is also true for your boss, so you cannot expect him or her to devote much time to your learning journey. In fact, most bosses are too busy to set aside time to learn themselves. You must own your own learning process, managing your professional growth and development. If you wait to be told what to learn, you are not being proactive about your learning. Even if you are not given a specific time to achieve this, it is up to you to set aside the necessary time to learn.

**3. Ignore your strengths.** Although picking jobs that fit your strengths is convenient, you can develop new strengths only by addressing your weaknesses, so if you want to acquire skills you don't have or develop new expertise, you will have to focus on what you don't know rather than what you do know. This takes courage—and support from your employer. At times, finding a skill adjacency can be a compromise, leveraging some of your existing capabilities to learn new things or acquire valuable experiences in a new area. Remember: Even if it makes you a relatively worse performer to begin with, it will improve your ability to learn new things and absorb new types of training, expanding your range of strengths.

**4. Learn from others.** Too often we equate learning with formal training or education, but some of the biggest learning opportunities are organic or spontaneous, and this is also true at work. They involve learning not from structured courses or training materials but from others: for example, peers, colleagues, bosses, and especially mentors. In fact, whereas formal learning interventions tend to boost only the acquisition of specific content or subject-matter expertise, spontaneous and

social types of learning are more likely to result in the formation of new habits and practical behaviors. Most of the problems we encounter during our everyday working lives are ill-defined rather than well-structured, so they do not have an objectively correct solution, requiring adaptive rather than technical learning. However, this requires seeking the right feedback and being receptive to others' suggestions, including criticism. Most of us are so busy trying to demonstrate competence that we forget to learn, and we believe asking for suggestions is a sign of weakness. If you have limited opportunities to learn from others, though, you can always learn something about yourself: How do others perceive you, including your talents and performance? Answering these questions will help you identify gaps, as well as future learning areas.

Learning should never stop. Regardless of your past achievements and present level of expertise, your future depends on your ability to keep learning.

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# 3. Throw Your Life a Curve

→ by WHITNEY JOHNSON

OUR VIEW OF the world is powered by personal algorithms: observing how all the component pieces (and people) that make up our personal social system interact and looking for patterns to predict what will happen next. When systems behave linearly and react immediately, we tend to be fairly accurate with our forecasts. This is why toddlers love discovering light switches: Cause and effect are immediate. The child flips the switch, and on goes the light. But our predictive power plummets when there is a time delay or nonlinearity, as in the case of a CEO who delivers better-than-expected earnings only to be surprised by a drop in the stock price.

Enter my coauthor, MIT-trained strategist and engineer Juan Carlos Méndez-García, who consults with both start-ups and *Fortune* 500 companies. According to Méndez-García, one of the best models for making sense of a nonlinear world is the S-curve, the model we have used to understand the diffusion of disruptive innovations and which he and I speculate can be used to understand personal disruption—the necessary pivots in our own career paths.

In complex systems like a business (or a brain), cause and effect may not always be as clear as the relationship between a light switch and a light bulb. There are time-delayed and time-dependent relationships in which huge effort may yield little in the near term or in which high output today may be the result of actions taken a long time ago. The S-curve decodes these systems by providing signposts along a path that, while frequently trod, is not always evident. Our hypothesis is that those who can successfully navigate, or even harness, the successive cycles of learning and maxing out that resemble the S-curve will thrive in this era of personal disruption.

Let's do a quick review. According to the theory of the diffusion of innovations—an attempt to understand how, why, and at what rate ideas and technology spread throughout cultures—diffusion or adoption is relatively slow at the outset until a tipping point is reached. Then you enter hypergrowth, which typically happens somewhere between 10% and 15% of market penetration. Saturation is reached at 90% or more.

For example, assuming an estimated market opportunity of one billion, Facebook took roughly four years to reach 10% penetration. Once it reached a critical mass of 100 million users, hypergrowth kicked in due to the network effect (for example, friends and family were now on Facebook), as well as virality (email updates, photo albums for friends of friends, and so forth). Although we could quibble, depending on our inputs, over when Facebook will reach saturation, there is no question the rate of growth has begun to slow and is now limited, if for no other reason than by the

**Ultimately, what our brain needs, even requires, is the dopamine of the unpredictable.**

number of people who can access the service.

As we look to develop competence within a new domain of expertise, progress is slow initially while moving up a personal learning curve. But through deliberate practice, we gain traction, entering into a virtuous cycle that propels us into a sweet spot of accelerating competence and confidence. Then, as we approach mastery, the vicious cycle commences: The more habitual what we are doing becomes, the less we enjoy the feel-good effects of learning. These two cycles constitute the S-curve.

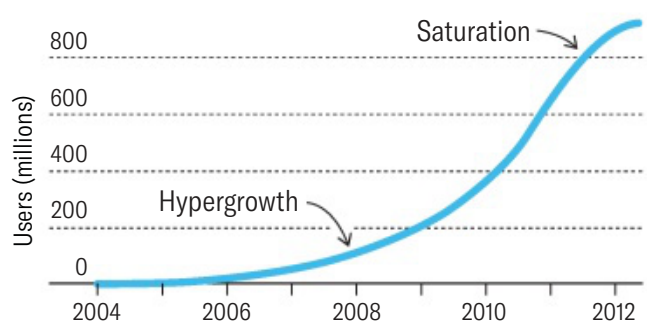
One anecdotal example of how the S-curve model can help us better predict the future is the experience of golfer Dan McLaughlin. Never having played 18 holes of golf, in April 2010, McLaughlin quit his job as a commercial photographer to pursue a goal of becoming a top professional golfer through 10,000 hours of deliberate practice. During the first 18 months, improvement was slow as McLaughlin first practiced his putting, chipping, and driving. Then, as he began to put the various pieces together, improvement accelerated, consistent with hypergrowth behavior. While he didn't track how quickly his handicap decreased, making it impossible for us to build an S-curve, 28 months into the project he has surpassed 91% of the 26 million golfers who register a handicap with the US Golf Association database. Not surprisingly, his rate of improvement (if measured as handicap) is now slowing as he faces competition from the top 10% amateur golfers.

Just as understanding the S-curve can keep discouragement at bay as we build new knowledge, it can also help us understand why ennui kicks in once we reach the plateau. As we approach mastery, our learning rate decelerates, and while the ability to do something automatically implies competence, it also means our brains are now producing less of the feel-good neurotransmitters—the thrill ride is over.

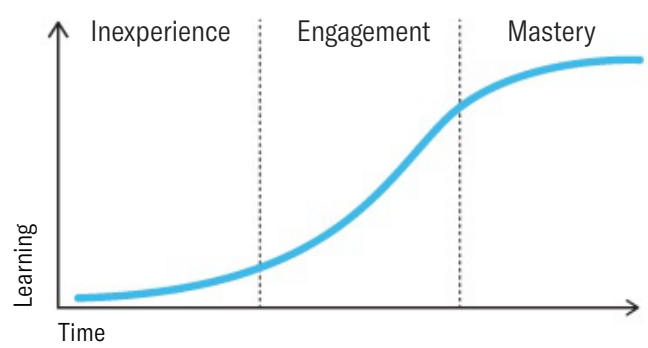
As our learning crests, if we fail to jump to new curves, we may actually precipitate our own decline. That doesn't necessarily mean a financial downfall, but our emotional and social well-being will take a hit. Saul Kaplan, chief catalyst at Business Innovation Factory, shares: "My life has been about searching for the steep learning curve because that's where I do my best work. When I do my best work, money and stature have always followed." Or, paraphrasing James Allworth, "Steve Jobs solved the innovator's dilemma because his focus was never on profit, but better and better products." Forget the plateau of profits: Seek and scale a learning curve.

The S-curve mental model makes a compelling case for personal disruption. We may be quite adept at doing the math around our future when things are linear, but neither business nor life is linear, and ultimately what our brain needs, even requires, is the dopamine of the unpredictable. More important, as we

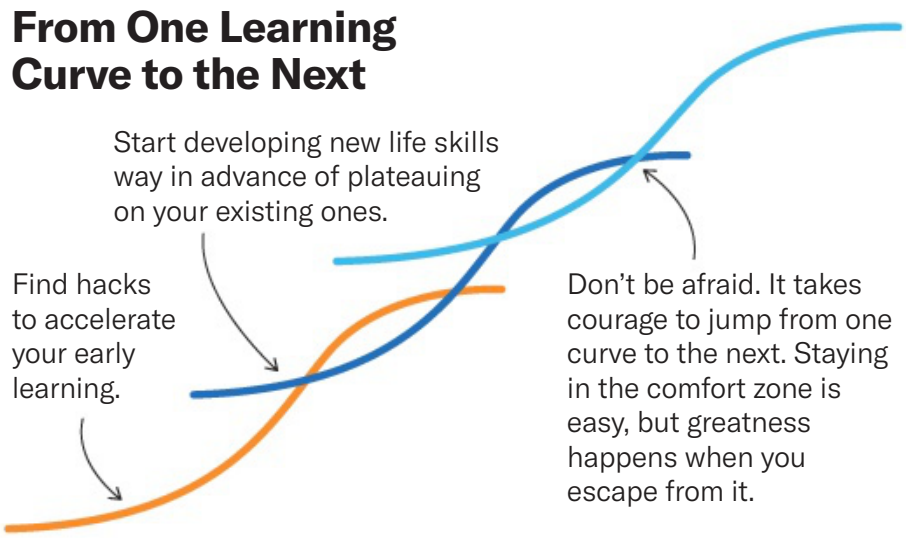
## Facebook's S-Curve




## S-Curve of Learning




## From One Learning Curve to the Next

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inhabit an increasingly zigzag world, the best curve you can throw the competition is your ability to leap from one learning curve to the next.

*This article was cowritten with Juan Carlos Méndez-García, managing director of 8020world. Born in Colombia, he has lived and worked in Asia, Europe, and the United States. Méndez-García holds an MBA from MIT Sloan School of Management, a master's in systems engineering, and a bachelor's in electrical engineering.*

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DAN HERRICK/GETTY IMAGES

# 4. To Cope with Stress, Try Learning Something New

→ by CHEN ZHANG, CHRISTOPHER G. MYERS, and DAVID M. MAYER

STRESSED. ANXIOUS. Exhausted. Drained. This is how many employees feel at work due to stressors like longer work hours, more-frequent hassles, the need to do more with fewer resources, and so on. Such work stress has been shown to induce anxiety and anger, unethical behavior, poor decision making, and chronic exhaustion and burnout—which all impair personal and organizational performance.

Typically people try to deal with this stress in two ways. One is to simply buckle down and power through—to focus on getting the stressful work done. Professional workers often have a bias for action and want to find a solution quickly. They pride themselves on being tough people who can keep working despite feeling stressed and fatigued.

The other common tactic is to retreat—to temporarily disconnect from work and get away from the stressful environment. Research on workday breaks has grown rapidly in the past few years, finding that relaxing and engaging breaks can improve emotions and boost energy at work. This helps explain why so-called relaxation facilities, such as nap rooms, workout centers, and entertainment zones, are becoming popular offerings at companies in knowledge-intensive industries.

Unfortunately, both grinding through and getting away have potential pitfalls. Research has long established that we humans have limits in handling heavy workloads, which restrict our ability to always grind through. Continuing to exert effort while stressed and fatigued will simply tax us and lead to depletion and impaired performance. And while a reprieve from work can provide temporary relief, it does not address the underlying problems that cause stress in the first place. When we return from a break, we not only face the same issues but may also experience additional guilt and anxiety.

So what else can employees do to temper the ill effects of stress? Our research suggests a third option: focusing on learning. This can

**Employees experience fewer negative emotions when they engage in more learning activities at work.**

mean picking up a new skill, gathering new information, or seeking out intellectual challenges. In two recent research projects—one with employees from a variety of industries and organizations, and the other with medical residents—we found evidence that engaging in learning activities can buffer workers from detrimental effects of stress, including negative emotions, unethical behavior, and burnout.

We investigated learning as a stress buffer because it helps workers build valuable instrumental and psychological resources. Instrumentally, learning brings us new information and knowledge we can use to solve near-term stressful problems. It also equips us with new skills and capabilities to address or even prevent future stressors. Psychologically, taking time to reflect on what we know and to learn new things helps us feel competent and capable of achieving goals and doing more. Learning also helps connect us to an underlying purpose of growth and development. This way, we can see ourselves as constantly improving and developing, rather than being stuck with fixed capabilities. These psychological resources enable us to build resilience in the face of stressors.

## Evidence of Learning as a Tool to Ease Stress

In two complementary studies, two of us (Chen and David, with Eunbit Hwang) studied more than 300 U.S. employees from various organizations and industries regarding their job stressors and behavior at work. Prior research has established that when stressed, people tend to engage in unethical behavior at work (such as stealing, falsifying time sheets, or being rude to coworkers), so we examined two potential remedies for this conundrum: learning new things and relaxing at work. The first study used daily surveys to track employees' feelings and activities at work over two weeks; the second study used paired survey responses to link employees' activities and feelings with what their supervisors observed. In both studies, employees reported the extent to which they engaged in learning activities at work (for example, doing things to broaden their horizons, seeking out intellectual challenges, or learning something new), as well as their relaxation activities at work (for example, taking some time to kick back, take a walk, or surf the web).

The first study revealed that, in the face of stress, employees experienced fewer negative emotions, such as anxiety and distress, and engaged in less unethical behavior, such as taking company property or being mean to coworkers, on days when they engaged in more learning activities at work compared with other days. Similarly, in the second study, these benefits were more common among employees who reported taking on more learning activities at work than other employees.

In contrast, relaxing activities did not buffer the detrimental consequences of stress—employees experienced the same levels of negative emotions and engaged in just as much unethical behavior on days when they did more relaxing activities at work compared with other days (study 1) and when they generally focused on relaxation more than other employees (study 2). Relaxation thus did not appear to be as useful a stress buffer as learning was.

The buffering effects of learning were further illustrated in a study one of us (Chris, with Heather Sateia and Sanjay Desai) conducted with medical residents, whose jobs involve the stressful task of caring for patients with critical conditions while working long hours with little rest or reprieve. In response to the growing issue of physician burnout, we surveyed approximately 80 internal medicine residents at Johns Hopkins University to better understand the relationships between their work behaviors and burnout. Our analysis revealed that residents who thought their team engaged in more learning behavior (such as seeking out new information or reflecting on the team's work process) reported significantly lower levels of burnout. This correlation between team learning and reduced burnout was especially pronounced for residents who reported lower levels of learning goal orientation—meaning they were not already approaching their work with an eye toward learning. This suggests that being part of a team where others are learning may also help buffer the detrimental effects of stressful, challenging work, even (or perhaps especially) for those who may not be as inclined to focus on learning themselves.

## Strategically Using Learning at Work

What specifically can you do to increase learning when faced with stress at work?

1. **Start internally.** Practice reframing stressful work challenges in your mind. When stress emerges, change the message you tell yourself from "this is a stressful work assignment/situation" to "this is a challenging but rewarding opportunity to learn." Viewing stressful tasks as learning possibilities shifts your mindset and helps you approach the task with an orientation toward growth and longer-term gains.

2. **Work and learn with others.** Instead of wrestling

with a stressful challenge solely in your own head, get input from others. Discussing a stressor with your peers and colleagues might reveal hidden insights, either from their experiences or from the questions and perspectives they raise.

**3. Craft learning activities as a new form of work break.** Alongside purely relaxing breaks—either short ones like meditating or longer ones like taking vacation days—consider recasting learning itself as a break from your routine tasks at work. This might seem like a mere mental rebranding, but if a learning activity allows you to divert from the type of effort you use in regular work activities (for example, working with numbers or interacting with clients) and also fits your intrinsic interests, it can replenish you psychologically. Viewing learning as "more work" will make it less attractive in an already stressful situation, but approaching it as a form of respite can make it more appealing and more likely to create positive, enjoyable experiences.

Embracing learning can be a more active way to protect yourself from negative effects of work stress, but don't wait for stress to arise before seeking learning opportunities. Even without pressing problems, engaging in learning as a central feature of your work life will help you build personal resources and be resilient and prepared to navigate future stress at work.

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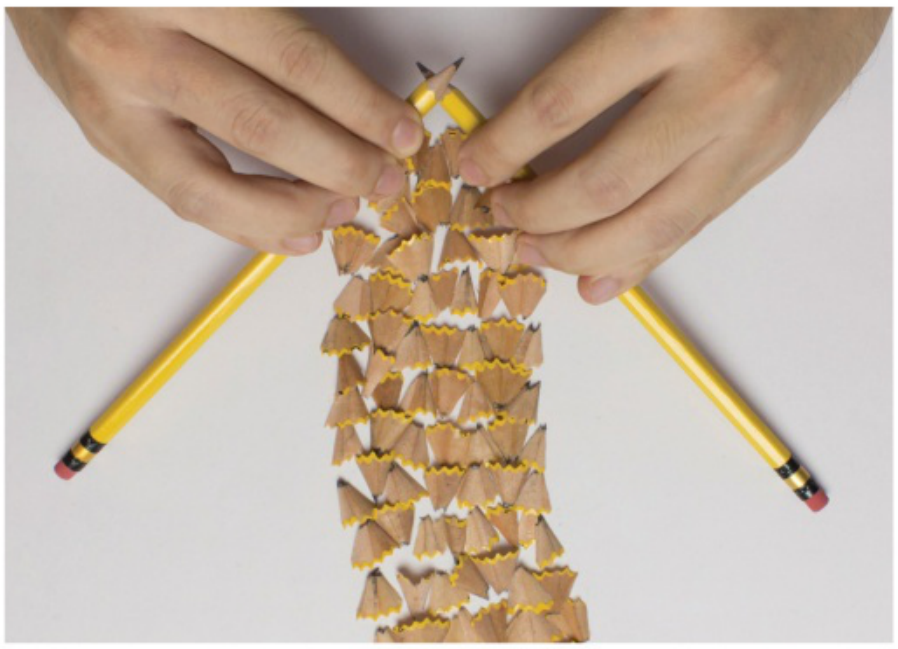

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# 5. Learning Is a Learned Behavior: Here's How to Get Better at It

→ by ULRICH BOSER

MANY PEOPLE MISTAKENLY believe that the ability to learn is a matter of intelligence. For them, learning is an immutable trait like eye color, simply luck of the genetic draw. People are born learners, or they're not, the thinking goes. So why bother getting better at it?

That's why many people tend to approach the topic of learning without much focus. They don't really think about how they will develop an area of mastery. Does practice mean repeating the same skill over and over again? Does practice require feedback? Should practice be hard? Or should it be fun?

But a growing body of research is making it clear that learners are made, not born. Through the deliberate use of practice and dedicated strategies to improve our ability to learn, we can all develop expertise faster and more effectively. In short, we can all get better at getting better.

A study by Marcel Veenman shows how learning strategies can be more

**People with clear goals outperform people with vague aspirations like "do a good job."**

important than raw smarts when it comes to gaining expertise. He has found that people who closely track their thinking will outscore others who have sky-high IQ levels when it comes to learning something new. His research suggests that in terms of developing mastery, focusing on how we understand is some 15 percentage points more important than innate intelligence.

Here are three practical ways, based on research, to build your learning skills.

**Organize your goals.** Effective learning often boils down to project management. To develop an area of expertise, you first have to set achievable goals about what you want to learn. Then you have to develop strategies to help you reach those goals. A targeted approach to learning helps you cope with all the nagging feelings associated with gaining expertise: *Am I good enough? Will I fail? What if I'm wrong? Isn't there something else I'd rather be doing?*

While some self-carping is normal, Stanford psychologist Albert Bandura says these sorts of negative emotions can quickly rob you of your ability to learn something new. Plus, you're more committed if you develop a plan with clear objectives. The research is overwhelming on this point. Studies consistently show that people with clear goals outperform people with vague aspirations like "do a good job." By setting targets, people can manage their feelings more easily and achieve progress with their learning.

**Think about thinking.** Metacognition is crucial to the talent of learning. Psychologists define metacognition as "thinking about thinking," and broadly speaking metacognition is about being more inspective about how you know what you know. It's a matter of asking yourself questions like: *Do I really get this idea? Could I explain it to a friend? What are my goals? Do I need more background knowledge or more practice?*

Metacognition comes easily to many trained experts. When specialists work through an issue, they will often think a lot about how the problem is framed and have a good sense of whether their answer seems reasonable.

The key, it turns out, is not to leave this sort of "thinking about thinking" to the experts. When it comes to learning, one of the biggest issues is that people don't engage in metacognition enough. They don't stop to ask themselves if they really get a skill or concept.

The issue, then, is not that something goes in one ear and out the other. It's that individuals don't dwell on the dwelling. They don't push themselves to really think about their thinking.

**Reflect on your learning.** There is something of a contradiction in learning. It turns out that you need to let go of your learning to understand your learning. For example, when you step away from a problem, you often learn more about that problem. Get into a discussion with a colleague, for instance, and often your best arguments arrive while you're washing the dishes later. Read a software manual and a good amount of your comprehension can come after you shut the pages.

In short, learning benefits from reflection, which requires a moment of calm. Maybe you're quietly writing an essay in a corner or talking to yourself while you're in the shower. It usually takes a bit of cognitive quiet, a moment of silent introspection, for people to engage in any sort of focused deliberation. It's even possible that you tidy up your knowledge while you're napping or sleeping deeply. One recent study shows a good evening of shut-eye can reduce practice time by 50%.

The idea of cognitive quiet also helps explain why it's so difficult to gain skills when you're stressed or angry or lonely. When feelings surge through your brain, you can't deliberate and reflect. Sure, in some sort of dramatic, high-stakes situations, you might be able to learn something basic, like remembering a phone number. But to gain any sort of understanding, you need to have some state of mental ease.

The good news from all this—for individuals and for companies looking to help their employees be their best—is that learning is a learned behavior. Being a quick study doesn't mean you're the smartest person in the room. It means you've learned how to learn. By deliberately organizing your learning goals, thinking about your thinking, and reflecting on your learning at opportune times, you can become a better study, too.

*Originally published on HBR.org May 2, 2018*

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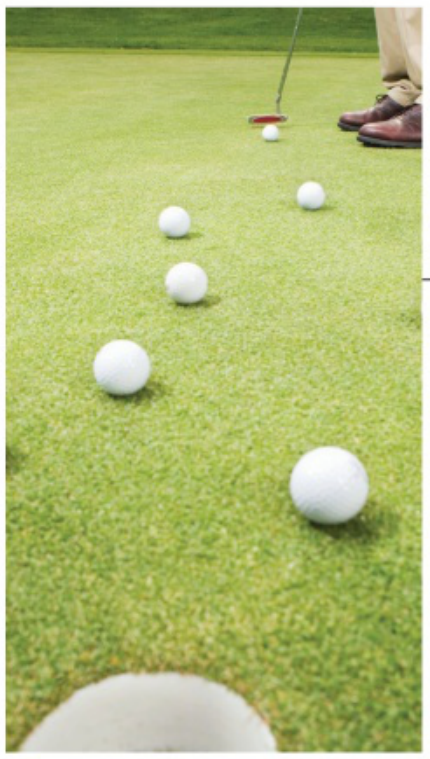
***Ulrich Boser** is the founder of The Learning Agency and a senior fellow at the Center for American Progress. He's the author of* Learn Better: Mastering the Skills for Success in Life, Business, and School, or, How to Become an Expert in Just About Anything *(Rodale Books, 2017).*



PAUL BURNS/GETTY IMAGES

# 6. How to Master a New Skill

→ by AMY GALLO

WE ALL WANT to be better at something. After all, self-improvement is necessary to getting ahead at work. But once you know what you want to be better at—be it public speaking, using social media, or analyzing data—how do you start? Of course, learning techniques will vary depending on the skill and the person, but there are some general rules you can follow.

## What the Experts Say

Mastering new skills is not optional in today's business environment. "In a fast-moving, competitive world, being able to learn new skills is one of the keys to success. It's not enough to be smart—you need to always be getting smarter," says Heidi Grant Halvorson, a motivational psychologist and author of *Nine Things Successful People Do Differently* (Harvard Business Review Press, 2012). Joseph Weintraub, a professor of management and organizational behavior at Babson College and coauthor, with James Hunt, of *The Coaching Manager: Developing Top Talent in Business* (Sage Publications, 2002), agrees: "We need to constantly look for opportunities to stretch ourselves in ways that may not always feel comfortable at first. Continual improvement is necessary to get ahead." Here are some principles to follow in your quest for self-improvement:

**Check your readiness.** When working on a new skill or competency, you should ask yourself two things. First, is your goal attainable? "There are certain limits to what you can learn," explains Weintraub. "For example, you may want to be a brain surgeon but not have the eye-hand coordination required." Second, how much time and energy can you give to the project? "It's not like going to the pharmacy and getting a prescription filled," says Weintraub. Self-improvement is hard work. Halvorson agrees: "Many people implicitly believe that if you have to work hard at something, it means you lack ability. This is rubbish." Instead, recognize that learning a new skill takes extreme commitment. Unless your goal is attainable and you're prepared to work hard, you won't get very far.

**Make sure the skill is needed.** Weintraub suggests you make sure the skill is relevant to your career, your organization, or both. You may be jazzed up about learning how to speak in front of large audiences, but does your manager value that? Unless you absolutely need the skill for your job, or for a future position, it's unlikely you'll get money for training or support from your manager. Gaining a new skill is an investment, and you need to know up front what the return will be.

**Know how you learn best.** Some learn best by looking at graphics or reading. Others would rather watch demonstrations or listen to things being explained. Still others need a hands-on experience. Halvorson says you can figure out your ideal learning style by looking back. "Reflect on some of your past learning experiences, and make a list of good ones and bad ones," she says. "What did the good experiences have in common? How about the bad ones? Identifying common strands can help you determine the learning environment that works best for you."

**Get the right help.** Eliciting support from others can greatly increase learning. Find someone you trust who has mastered the skill you're trying to attain, and look beyond your immediate manager, who has to evaluate you. Weintraub suggests you ask yourself: "Who in my organization, other than my boss, would notice my changes and give me honest feedback?" Then approach that person and say something like, "You are so comfortable with [the skill], something I'm not particularly good at. I'm really trying to work on that and would love to learn from you and get your feedback." If you can't find a mentor inside your company, look for people in your industry or from your network. "Ultimately, you want to go with the best teacher. If there is someone in your organization who is willing and able to provide quality mentoring, then great. If not, seek outside help," says Halvorson.

**Start small.** Self-improvement can feel overwhelming. "You can't take on everything. If you do, you'll never do it," says Weintraub. Instead, choose one or two skills to focus on at a time, and break that skill down into manageable goals. For example, if you're trying to become more assertive, you might focus on speaking up more often in meetings by pushing yourself to talk within the first five minutes.

**Reflect along the way.** To move from experimentation to mastery, you must reflect on what you are learning; otherwise the new skill won't stick. Halvorson and Weintraub both suggest talking to others. "Always share your goals with those individuals who can provide informational or emotional support along the way," says Halvorson. "Even if that person doesn't have the answer, he can help you and keep you honest about how much you're improving," says Weintraub. Talking about your progress helps you get valuable feedback, keeps you accountable, and cements the change.

**Challenge yourself to teach the skill to others.** One of the quickest ways to learn something new, and to practice it, is to teach others how to do it. So share what you learn with your team, manager, or coworkers. You can force yourself to do it by putting a "teaching" date on your calendar or agreeing to lead a formal training session a few months down the road. With those objectives, your learning will be much more focused and practical.

**Be patient.** "Too often, we approach a new skill with the attitude that we should nail it right out of the gate," says Halvorson. The reality is that it takes much longer. "It's not going to happen overnight. It usually takes six months or more to develop a new skill," says Weintraub. And it may take longer for others to see and appreciate it. "People around you will only notice 10% of every 100% change you make," he says.

## Principles to Remember

**Do:**

- Select a skill that is valued by your organization and manager
- Divide the skill up into smaller, manageable tasks
- Reflect on what you've learned and what you still want to accomplish

**Don't:**

- Try to learn in a vacuum—ask others for guidance and feedback
- Rely solely on your boss for advice—you may want to involve someone who isn't responsible for evaluating you
- Assume it's going to happen overnight—it usually takes at least six months to develop a new skill

CASE STUDY 1

### Learn by Trial and Error

Jaime Petkanics was a Basic Excel user when she started her first job out of college. As a recruiter for JPMorgan Chase, data analysis wasn't one of the required skills. However, a few months in, she was asked to build an Excel model that would track and report the success rates of campus-recruiting efforts. "I was totally out of my element," she admits. "Excel is not a core part of a recruiter's job. I was focused on hiring people—that's what I was being measured on." But she had an interest in analysis (that's why she chose to do recruiting at an investment bank) and wanted to prove herself as a newcomer.

She started by learning as much as possible on her own. She found tutorials on Google and watched instructional videos on YouTube. But she still struggled. "When I got stuck, I would ask bankers. They build models every day, so I was able to leverage my connections and find people who had the right skills," she says. Over the course of two weeks, Jaime developed the model. "I didn't get it perfect the first time. There were mistakes in the formulas, and people found errors," she says. But she continued to refine it, and because of her success, others asked her to take on similar projects. "Once people knew that I could pull data together quickly—and make sense of it—I started to get a lot of requests."

She admits this trial-and-error approach wasn't the most effective way to learn Excel, but given the immediacy of the need, it was necessary. By the time she left the job almost three years later, Excel and data analytics were strengths that helped her land her next position.

CASE STUDY 2

### Experiment with Different Approaches

Safia Syed, a regional finance controller at a global outsourcing company, noticed that any time she suggested an improvement to a financial or IT system, colleagues resisted. Her ideas went through numerous rounds of review and were heavily questioned. She decided that her communication style was hindering her and needed to be changed. "I was given feedback a few times that I was too opinionated," she says.

Safia started by reading books about how to persuade people effectively and joined Toastmasters, a nonprofit educational organization, where she learned how to connect with stakeholders and present ideas in a more appealing way. Also, coincidentally during the same time, the president of Safia's company started interviewing key employees to better understand what they did

or did not like about their jobs. This provided Safia with a perfect opportunity. She explained her desire to see her ideas have more impact, and the boss advised her to focus less on why something needed to be changed and more on how it could happen, including what she could do to make sure it did.

Safia realized she had been assuming that her colleagues understood what the problems were and how to fix them. She had been highlighting what needed to be done and leaving it at that. With her new understanding in hand, she was able to try a different approach: She mapped out a process and pointed to the root causes. This helped her audience understand where they could make changes and how exactly she could help.

Safia has noticed a big difference in how colleagues respond to her suggestions: They are now more open to hearing them and willing to work with her to implement them.

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JONATHAN KNOWLES/GETTY IMAGES

# 7. How to Move from Self-Awareness to Self-Improvement

→ by JENNIFER PORTER

WE KNOW THAT, to be effective, leaders need self-awareness—that is, an understanding of their strengths, weaknesses, feelings, thoughts, and values, as well as how they affect the people around them. But that's only half the story. Self-awareness is useless without an equally important skill: self-management.

A client of mine—we'll call him Rick—serves as a case in point. He has been given repeated feedback that he speaks too often and for too long in meetings. He told me that he wants to improve this behavior and learn how to be a more productive participant to help his team make better decisions. After a recent meeting with 15 people where he spoke for 30% of the time, I asked him to evaluate his participation. He replied, "I know I talked too much, but I had a lot of points to make." He then continued to tell me more about his ideas. Rick is very self-aware, but he isn't as effective as he could be because he doesn't self-manage.

Self-management is a conscious choice to resist a preference or habit and instead demonstrate a more productive behavior. It's a four-step process:

1. **Be present.** Pay attention to what is happening in the moment—not what was said 15 minutes ago or what will happen in your next meeting.

2. **Be self-aware.** What are you seeing, hearing, feeling, doing, saying, and considering?

3. **Identify a range of behavioral choices.** What do you want to do next? What are the possible consequences of each action? What feedback have you gotten that might inform your choices? What are some alternative choices you can make—even if they're not what you want to do or what you usually do?

4. **Intentionally choose behaviors that are believed to be the most productive.** What behavior will generate the best outcome, even if it's not the behavior that comes easiest to you?

For Rick, self-management would look like this:

1. **Be present.** "I'm focused on this conversation, really listening to everyone's comments, and paying attention to what is happening."

2. **Be self-aware.** "I notice I'm excited and eager to share my ideas. I also recognize a lot of people in the room are trying to speak, and I know I tend to speak too often in meetings, which can stop others from participating."

3. **Identify a range of behavioral choices.** "I could explain my ideas, ask a helpful question, invite others to share their ideas, or listen silently."

4. **Intentionally choose behaviors that are believed to be the most productive.** "I'm going to withhold my comments and instead listen to what others are saying.

**Understanding why you make certain choices is crucial to changing them.**

Even though I really want to share my ideas, I've been repeatedly told that I talk too much and don't give others a chance to contribute. If I listen now, I will finally be giving others that chance."

What makes self-management so hard goes back to the definition. The most productive behaviors are often not aligned with our habits and preferences. (If they were, we would not need to manage ourselves.)

Behaving in ways that aren't aligned with your preferences can make you feel uncomfortable ("I always respond first in a Q&A. I worry others won't get it right"), unskillful ("I don't know how to give negative feedback"), and even unpleasant ("I like being direct and get impatient when I have to choose my words carefully").

Operating in ways that contradict our habits can evoke similar negative reactions. With a habit, our brain creates a shortcut and moves from stimulus to response without thinking, saving both time and effort. But nonhabitual behaviors require us to think about a situation, consider and make choices, and then demonstrate the behavior that aligns with that choice. This takes work. The auto-pilot efficiency of habits is what makes them so hard to change. It's easier and more pleasant to default to an old habit than it is to invest the energy in creating a new one.

Despite these barriers, you can learn self-management, starting with these steps:

**Decide where you want to self-manage.** Pay attention to how you typically operate—what you do and don't say and do. Identify instances where your current approach is not working as well as you'd like and self-management might be useful. For example, maybe, like Rick, you talk too much in meetings.

**Notice and reflect on what's driving your lack of self-management.** In those moments where you're not self-managing but would like to, notice how you feel, what you want, and how you are interpreting what's going on around you. What is driving your actions? Is it a lack of awareness in the moment, the desire to look good, a lack of skills, insecurity, or something else? If you talk too much in meetings, for example, consider why you do that. Maybe you like your own ideas better than others', or it never occurred to you to talk less. Those of us who have a bias for action may be tempted to skip this step of reflection and move straight to planning and practicing—but don't. Understanding why you make certain choices is crucial to changing them.

**Consider your choices and your reactions to those choices.** Instead of your default behaviors, if you were self-managing, what else could you do? What is your reaction to those options? Notice your habits and preferences, and ask yourself what you are trying to avoid when you default to them. Sticking with the example of talking too much in meetings, you might consider waiting for others to speak before offering your perspective. Now, consider your reaction to that option. Are you afraid someone else will make your point and you won't get credit for it, or that others won't have ideas as relevant as yours and a bad decision will be made?

**Make a plan.** Now that you know what you want to change, better understand what's driving you, and have identified some options, think of concrete steps you can take. If you talk too much, your plan might include deciding how many times you will speak in a meeting and for how long, or in which meetings you will only listen and not speak.

**Practice.** Old habits are hardwired into our brains. To change them, we need to create new neural pathways (new habits), and this requires practice. Using the example of talking too much in meetings, practice might look like counting your comments and stopping when you hit your maximum—even if you have just one more very important thing to say. Do this repeatedly until you can consistently self-manage that behavior. At the same time, explore your reactions to your practice. What can you learn from what you're doing, and from how you're reacting, that can inform your continued practice?

**Repeat the process.** Go back to Step 2 and observe your efforts, reflect on your choices, revise the plan, and practice some more. In each successive iteration, you'll learn a bit more about how you're operating, what's driving your behavior, and how you can improve it.

It's natural to behave in ways that feel good and familiar—to not self-manage—and yet, if we did this all the time, we'd never get better at anything. Effective leaders move beyond self-awareness to self-management. Start by recognizing your current actions and considering alternative options. Then work hard to resist what may be most familiar or comfortable and commit to effectively executing what is most productive.

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# 8. Why You Should Make Time for Self-Reflection (Even If You Hate Doing It)

→ by JENNIFER PORTER

WHEN PEOPLE FIND out I'm an executive coach, they often ask who my toughest clients are. Leaders who are inexperienced? Who think they know everything? Who bully and belittle others? Who shirk responsibility?

The answer is none of the above. The hardest leaders to coach are those who won't reflect—particularly leaders who won't reflect on themselves.

At its simplest, reflection is about careful thought. But the kind of reflection particularly valuable to leaders is more nuanced than that. The most useful reflection involves consciously considering and analyzing beliefs and actions for the purpose of learning. Reflection gives the brain an opportunity to pause amid the chaos, untangle and sort through observations and experiences, consider multiple possible interpretations, and create meaning. This meaning becomes learning, which can then inform future mindsets and actions. For leaders, this "meaning making" is crucial to their ongoing growth and development.

Research by Giada Di Stefano, Francesca Gino, Gary Pisano, and Bradley Staats in call centers demonstrated that employees who spent 15 minutes at the end of the day reflecting about lessons learned performed 23% better after 10 days than those who did not reflect. A study of UK commuters found a similar result when those who were prompted to use their commute to think about and plan for their day were happier, more productive, and less burned-out than people who didn't.

So, if reflection is so helpful, why don't many leaders do it? Leaders often:

**Don't understand the process.** Many leaders don't know how to reflect. One executive I work with, Ken, shared recently that he had yet again not met his commitment to spend an hour on Sunday mornings reflecting. To help him get over this barrier, I suggested he take the next 30 minutes of our two-hour session and just quietly reflect and then we'd debrief it. After five minutes of silence, he said, "I guess I don't really know what you want me to do. Maybe that's why I haven't been doing it."

**Don't like the process.** Reflection requires leaders to do a number of things they typically don't like to do: slow down, adopt a mindset of curiosity and not knowing, tolerate messiness and inefficiency, and take personal responsibility. The process can lead to valuable insights and even breakthroughs—as well as feelings of discomfort, vulnerability, defensiveness, and irritation.

**Don't like the results.** When leaders reflect, they typically see ways they were effective as well as things they could have done better. Most leaders quickly dismiss the noted strengths and dislike the noted weaknesses. Some become so defensive in the process that they don't learn anything, so the results are not helpful.

**Have a bias toward action.** Many leaders prefer taking action. A study of professional soccer goalies defending penalty kicks found that goalies who stay in the center of the goal, instead of lunging left or right, have a 33% chance of stopping the goal, yet these goalies stay in the center only 6% of the time. They just feel better when they "do something." The same is true of many leaders. Reflection can feel like staying in the center of the goal and missing the action.

**Can't see a good ROI.** From early roles, leaders are taught to invest where they can generate a positive ROI—results that indicate the contribution of time, talent, or money paid off. Sometimes it's hard to see an immediate ROI on reflection—particularly when compared with other uses of a leader's time.

If you have found yourself making these same excuses, you can become more reflective by practicing a few simple steps:

**1. Identify some important questions.** But don't answer them yet. Here are some possibilities:

- What are you avoiding?
- How are you helping your colleagues achieve their goals?

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- How are you not helping or even hindering their progress?
- How might you be contributing to your least enjoyable relationship at work?
- How could you have been more effective in a recent meeting?

**2. Select a reflection process that matches your preferences.** Many people reflect through journal writing. If that sounds terrible, consider talking with a colleague. As long as you're reflecting and not just chatting about the latest sporting event or complaining about a colleague, your approach is up to you. You can sit, walk, bike, or stand, alone or with a partner, writing, talking, or thinking.

**3. Schedule time.** Most leaders are driven by their calendars. So, schedule your reflection time and then commit to it. And if you find yourself trying to skip or avoid it, reflect on that!

**4. Start small.** If an hour of reflection seems like too much, try 10 minutes. Teresa Amabile and her colleagues found that the most significant driver of positive emotions and motivation at work was making progress on the tasks at hand. Set yourself up to make progress, even if it feels small.

**5. Do it.** Go back to your list of questions and explore them. Be still. Think. Consider multiple perspectives. Look at the opposite of what you initially believe. Brainstorm. You don't have to like or agree with all your thoughts—just think and examine your thinking.

**6. Ask for help.** For most leaders, a lack of desire, time, experience, or skill can get in the way of reflection. Consider working with a colleague, therapist, or coach to help you make the time, listen carefully, be a thought partner, and hold you accountable.

Despite the challenges to reflection, the impact is clear. As Peter Drucker said: "Follow effective action with quiet reflection. From the quiet reflection will come even more effective action."

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# 9. You Learn Best When You Learn Less

→ by LASZLO BOCK

LAST YEAR, U.S. companies spent roughly $90 billion on learning and development efforts, a sum higher than the gross domestic product of 130 countries. In 2018 the average American employee received training at a cost close to $1,000 per person. On its own that might not sound like much, but to put those numbers into perspective: For companies with head counts of more than 50,000, that's around $50 million a year.

This is a staggering sum, especially when you consider that most of that money and time is wasted.

Training and development programs are not necessarily the problem. The problem is that there is often no measure of what's learned or what behaviors change as a result of such massive investments. A survey of roughly 1,500 executives across industries, regions, and companies of various sizes showed that one in five organizations do nothing to measure the impact of employee trainings. Of those that do, only 13% calculate quantifiable returns. It's no wonder that two-thirds of employees think their training programs fail to improve business performance.

What most companies miss is that learning at work isn't about how many hours you put in; it's about getting the right information to the right people at the right time. Simply put: You learn best when you learn less.

When I cofounded Humu, after spending more than a decade as senior vice president of People Operations at Google, my goal was to make work better by making learning and development easier. At Humu, we help people by automating learning and behavioral change on a large scale using a machine-learning technology we call the Nudge Engine. Our "nudges" empower employees to experiment, practice,

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and master the skills needed to meet the demands of a rapidly evolving world in a way that old-guard trainings simply can't.

Humu's nudges are small, unintrusive, research-backed suggestions and reminders delivered to employees through email or other messaging platforms. Our algorithms diagnose high-impact behaviors for each individual on the basis of their role and experience, then nudge them with custom content that encourages these behaviors. Most managers, for example, would benefit from a regular reminder to thank team members who ask important questions or to facilitate equitable discussions. This is what our nudges do—for every person we work with.

The science of nudges isn't new. In their book *Nudge: Improving Decisions About Health, Wealth, and Happiness* (Yale University Press, 2008), Professors Cass Sunstein and Richard Thaler provide a revelatory look at the powerful effect positive reinforcement and indirect suggestions can have on behavior and decision making.

Put into the context of the workplace, nudge theory can be employed to help people take positive action to master new skills—without interrupting the normal flow of their work. Rather than spending a large sum of money on expensive learning modules, by applying the foundations of nudges—and Humu's learning philosophy—organizations can use gentle, timely, and relatively simple means to turn intention into action. And, in doing so, they can boost the effectiveness of development programs and unlock the full potential of teams, without spending millions (or billions) on trainings.

Here are some tips to get started.

**Keep it small.** Breaking bigger goals into mini-milestones makes it easier to build the skills you need to reach those goals. K. Anders Ericsson, a psychologist who has studied the acquisition of expert-level skills for decades, finds that experts not only segment their activities into tiny actions but repeat them relentlessly and watch what happens each time. On the basis of their observations, they make minor, almost imperceptible, adjustments to get better.

In trainings, break lessons down into small, digestible pieces, and encourage employees to practice them back in the real world. For example, if a leader wants to communicate better with his team, start by giving him three simple questions to ask in every one-on-one meeting:

- What's going well?
- What are some challenges you're facing?
- How can I help?

The quality of the leader's conversations will undoubtedly improve, and this positive reinforcement will motivate him to check in with team members more often—a small step toward a much larger change.

**Make feedback a habit.** Most people want to get better. At Google, we provided our managers with a semiannual report that highlighted their strengths and areas of improvement. Even if they didn't attend a single training, we consistently found that by the next assessment period, many managers had improved in areas they previously struggled with.

You can apply this practice in your own organization by creating an environment in which both employees and managers feel safe giving one another regular feedback—both positive and constructive. Invite questions during all-hands, foster open discussion in team meetings, and ask your team intentional questions ("What's one thing we could do better?" or "How do you think this project is going?"). Let people know that it's OK to suggest solutions when they recognize a problem.

**Provide regular reminders.** We only have so much cognitive capacity at a given time, and in a fast-paced work environment, where employees have many daily tasks, keeping sight of long-term development goals can be a huge challenge. Something as simple as an email reminder or in-person check-in can keep people on track. At Google, we designed a nudge to help new hires succeed in their roles by reminding them of the behaviors our top performers practice regularly. For example, we listed "Ask questions, lots of questions!" and "Actively solicit feedback—don't wait for it." Doing so helped new hires find more opportunities to practice and develop those skills, boosting their productivity by 2%, or about $400 million per year.

Managers can make reminders a regular practice by first setting learning goals with their direct reports and then meeting with them regularly to check in on progress. This will also allow them to give feedback and help team members through any challenges they may be facing.

**Invest only in what works.** Organizations that measure the effectiveness of their train-

ing programs tend to have more-effective programs. If you invest in learning and development, make sure you define measures of success beforehand. Regularly check whether these programs have a measurable impact on metrics like productivity, retention, and job satisfaction. If they don't, scrap them and shift your focus to investing in new technologies or strategies that have a track record of success. But don't be afraid to dump those too if they don't deliver. Keep going until you find tools and processes that you can prove work best for your people.

Any workplace can benefit from adopting the mindset that you learn best when you learn less. These recommendations might seem small, or even simple, but they can unlock your teams' full potential—and just might save you millions of dollars along the way.

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# 10. Three Ways to Use MOOCs to Advance Your Career

→ by WALTER FRICK

THE VAST MAJORITY of people who sign up for a MOOC (massive open online course) never complete it. More than 50% consume less than half the course's content. This is wrongly viewed as evidence that MOOCs don't work, that people are dropping off and not getting value. The assumption behind that conclusion is that you have to complete a whole, semester-long course to get value from online education. As a MOOC addict, I can tell you: That's not true. Instead, I've found there are at least three good ways to learn from MOOCs, depending on your goals and the time you plan to spend.

In some cases, it makes sense to go for a certificate, which means completing all the coursework. That usually costs money. For courses on Coursera, edX, or Udacity, getting a certificate typically requires several hours of work per week, for several weeks or even months. In the end, you get to add a line to your résumé certifying that you completed the course.

But that's not the only way to use MOOCs. Another choice is to audit a course, watching all the videos but not necessarily completing all the assignments. The downside is you don't get a certificate, and in some cases, you don't have full access to quizzes or other helpful materials. The upside is you have less pressure to get the work done and can usually learn at your own pace. Often this option is also available for free.

Finally, sometimes you can get what you want just by sampling a MOOC, watching a video here or there to get the specific knowledge you need. For example, say you want to do some regression modeling in Excel. Other resources may exist to learn about regression, but the instruction in

**Showing off what you have learned in an MOOC is doable without certification.**

MOOCs is often of higher quality. Instead of watching a full course, you might find a single lesson within a broader statistics course and watch just that lesson. Many of the platforms will let you sample for free, though others, like Lynda.com, run on a subscription basis.

The key is to make MOOCs work for you so that you can learn the things you want to, whether it's improving at work, getting a new job, or just having fun.

How do you know which path is right for you? Here are some questions to help you decide:

**Are you completely new to the topic?** If you have no background in the topic you want to learn about, taking the full course for certification is more likely to make sense. Sampling isn't a good strategy because you'll have a harder time deciding what you need to learn ahead of time. (You don't know what you don't know.) Auditing might still be an option, but the extra effort to complete the assignments will ensure that you actually learn what you hope to, and those assignments are often available only if you pay for certification.

On the other hand, if you're already somewhat familiar with the topic but need to brush up on it, auditing or sampling may make more sense. Maybe you took a marketing course in school, for instance, and you intersect with the field a bit at work, but you want to refresh on the basics. Auditing a course by watching all the videos might do the trick, even if you don't complete all the assignments or pay for certification. Or, if you're trying to brush up on something narrower, seeking out and sampling a few specific videos may be enough.

**How much time can you commit?** Most people who sign up for MOOCs don't end up completing the full course because doing so takes considerable time and effort (and usually costs money).

Attempting to complete the course and receive certification makes sense only if you can spare the time. If you pay to take a MOOC, plan out when you can do the work. For instance, if you commute using public transportation, you could watch the videos on your way to and from work, leaving only the assignments for nights and weekends.

If you don't have several hours a week to commit, auditing or sampling will allow you to absorb the material on your own schedule.

**How will you demonstrate to others what you've learned?** If you're just learning for your own enjoyment, you probably don't need to pay for a MOOC, since the main thing the money buys you is certification. But if you're doing the course for work, you'll want some way to show off what you've learned.

In some cases, that's doable without certification. Maybe you can demonstrate your new knowledge of finance by helping with your department's budget. Or if you're learning mobile app development, you could build an app as a side project. If these options seem sufficient to showcase your skills or knowledge, you may not need to pay for the course. Alternatively, if what you're learning isn't conducive to side projects easily incorporated into your current job, paying for a certification is most likely worth it.

If you choose to audit a course because you plan to use what you've learned through a side project, think ahead of time about exactly what that project will be. Be realistic. It's easy to say you'll build a website in your spare time once your course ends; in practice, you'll need to consider how you'll find the time.

Too much of the discussion around MOOCs has focused narrowly on people spending a semester on a particular course, but that's not the only option. Taking a course for certification makes sense if you have the time, are new to a topic, or need the certification to demonstrate what you've learned. Otherwise, auditing a course, or just sampling parts of it, can still help you get better at your job.

There's never been more free (or nearly free) quality educational resources available to anyone with an internet connection. Why not find a way to improve your skills and career? After all, someone else in your field surely is.

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***Walter Frick*** *is deputy editor of HBR.org.*

# 11. Should You Get an MBA?

→ by ED BATISTA

AT LEAST ONCE a month an ambitious and hardworking person in their 20s asks me, "Should I get an MBA?" I earned my MBA from the Stanford Graduate School of Business in 2000, and since 2007 I've been an instructor and an internal coach back at the GSB, helping hundreds of students develop their leadership and interpersonal skills.

Here's how I respond to those inquiries. First, it's critical to determine whether your expectations for an MBA are aligned with what the degree will do for you. MBA programs offer three different types of benefits, all of which vary tremendously from one school to another:

**Practical leadership and management skills.** Management education has changed significantly over the last few decades. Previously it focused on quantitative analysis in areas such as finance and operations, with little emphasis on other aspects of organizational life. As a result MBAs were often seen as bean counters myopically focused on data and out of touch with the real-world challenges managers face.

MBA programs responded by expanding their offerings in areas such as strategy, organizational behavior, and leadership. B-school curricula are still intensely quantitative, but as GSB dean Garth Saloner told McKinsey, "The [quantitative] skills of finance and supply chain management and accounting and so on, I think those have become more standardized in management education, have become kind of what you think of as a hygiene factor: Everybody ought to know this."

Business schools have realized it's not sufficient to provide quantitative and analytical training, because within a few years of leaving school (or even immediately upon graduation), their alumni will add value more through their ability to lead and manage others than through their talents as individual contributors. And effectiveness in these more senior roles requires an entirely different interpersonal skill set. Saloner goes on to note that "the softer skill sets, the real leadership, the ability to work with others and through others, to execute, that is still in very scarce supply."

But the ability to provide quality training in these areas is unevenly distributed across MBA programs. The best schools have made leadership and interpersonal skills a high priority—Stanford now offers 12 sections of Interpersonal Dynamics to more than 400 students each year, making this labor-intensive course our most popular elective. Second-tier schools are trying to catch up, but high-caliber programs in these fields are difficult to establish. Harvard professor Bill George has said, "I don't think you can teach leadership; I think you can learn about it" through experiential activities that bring students together to help them understand their strengths and limitations, provide feedback, and promote self-awareness. These activities require a very different approach from traditional lecture methods.

I'm not suggesting that the quantitative and technical skills that an MBA provides aren't useful—they absolutely are. But they're also increasingly available through other venues that individuals can access on their own at a much lower cost. The special advantage of an MBA program is the opportunity to develop leadership and interpersonal skills with a group of peers in a sequence of experiential courses informed by current research. So ask yourself:

- Do the MBA programs I'm considering provide practical leadership and management training?
- How well-established are these courses? How much support do they have from the school and from the surrounding community?
- What do alumni say about their experiences in these courses? How have they benefited from this training?
- What alternative means are available to me to develop these practical skills?

**A credential that sends a signal to the marketplace.** No career paths absolutely require an MBA—it's an optional degree and is nothing like a JD, an MD, or the other credentials that professions such as law and medicine make mandatory. There are many senior people in general management roles, in consulting, and even in financial services who don't have an MBA, so don't assume that the credential will necessarily serve a meaningful purpose in your chosen field.

As a coach I have two different "markets"—my students at Stanford and my private clients, who are primarily senior leaders—and in both settings my degree

SEAN DE BURCA/GETTY IMAGES

sends a useful signal. New students feel more comfortable knowing that I've been in their shoes (albeit 15 years ago), and prospective clients trust that I understand the complexities of their world and the challenges they face.

But it's not a given that an MBA will have this effect. In my first job after business school I interacted with a diverse range of communities, and while I never misled anyone about the fact that I had an MBA, I didn't advertise it either. I knew that some people in my field had negative impressions of MBAs, and I wanted to prove myself as an individual before being stereotyped. My particular version of this experience may have been unusual, but by no means is it unique—MBAs are viewed with skepticism and even disdain in many fields and organizations.

In addition, the nature of the signal being sent depends on the specific MBA program's reputation, and this is not simply a matter of prestige. Harvard, Stanford, and Wharton routinely top lists of U.S. business schools, but they also have a reputation for entitlement and arrogance. Whereas some firms seek out graduates from elite schools, others avoid them out of a concern that they will be difficult to work with and disruptive to the established culture. So ask yourself:

- What market am I in now? What markets might I seek to enter in the future?
- Who's interested in my services? How might this change if I had an MBA?
- How are MBAs perceived and what signals does an MBA send in these markets? What stereotypes (both positive and negative) might I face as an MBA?
- What is the specific reputation of the MBA programs I'm considering? How are these schools and their alumni viewed within my desired markets?
- What alternative means are available to me to send the signals I desire to communicate?

**Membership in a learning community and access to an alumni network.** Business school emphasizes working in groups, and MBA students often learn as much from their peers as they do from faculty, so it's important to consider whom you'll be working alongside for two years. Those same people will become your fellow alumni, and access to that network is one of the most valuable benefits an MBA program can offer.

Of course, alumni networks aren't created equal. Larger MBA programs yield larger networks. Certain networks are concentrated in specific geographic areas or industries. And some B-school experiences create networks that are particularly active sources of mutual support.

I've benefited tremendously from the support of my fellow GSB alumni during two major professional transitions. In my job search after graduation and later, when I began exploring executive coaching as a career path, other Stanford alumni were extraordinarily generous with their time and insights, and there's no way I could have succeeded without their help.

All this said, there's a misperception about the importance of socializing in business school as a means of cultivating these ties. To be sure, my students devote a substantial amount of time and energy to elaborate social activities, and I often find myself amused at the lengths to which they go to entertain themselves. However, while it's true that I'm middle-aged and boring, and a quiet night at home is my idea of a good time, I was pretty dull even as a student and didn't spend much time at parties or other social events.

But I didn't need to in order to benefit from the GSB network—the school's relatively small size and communal culture help ensure that graduates feel a sense of obligation to help fellow alumni. And the fact that I can't pay back the many people who helped me is motivation to pay it forward by doing as much as I can to support recent alumni seeking help from me. So ask yourself:

- What do I know about the students at the MBA programs I'm considering? Are they like-minded peers? Do I see myself learning alongside them?
- What do I know about the alumni networks of these programs? How active are they? Are they concentrated in geographic areas and professional fields of interest to me?
- What support does a school provide to its alumni network and to individual alumni? Do alumni return frequently to participate in events and activities at the school?

One final point on diversity: I have no doubt that my experience in business school was made substantially easier by the fact that I'm a straight, white, American man with an Ivy League undergraduate degree. Even as MBA programs have sought to attract more-diverse student populations in recent years, B-schools are still disproportionately filled with people like me. And even at Stanford, which prides itself on its inclusiveness, women, gays and lesbians, people of color, students from outside the U.S., and nonnative English speakers can feel isolated in business school and find the MBA experience more difficult and stressful. I hope to encourage people from a wide range of backgrounds to consider business school as an option, and it feels important to acknowledge this current state of affairs if anything is to change.

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# Speeding Up Team Learning

The most successful teams adapt quickly to new ways of working. Now, a study of 16 cardiac surgery teams offers intriguing insights on how to make that happen.

→ by AMY EDMONDSON, RICHARD BOHMER, and GARY PISANO

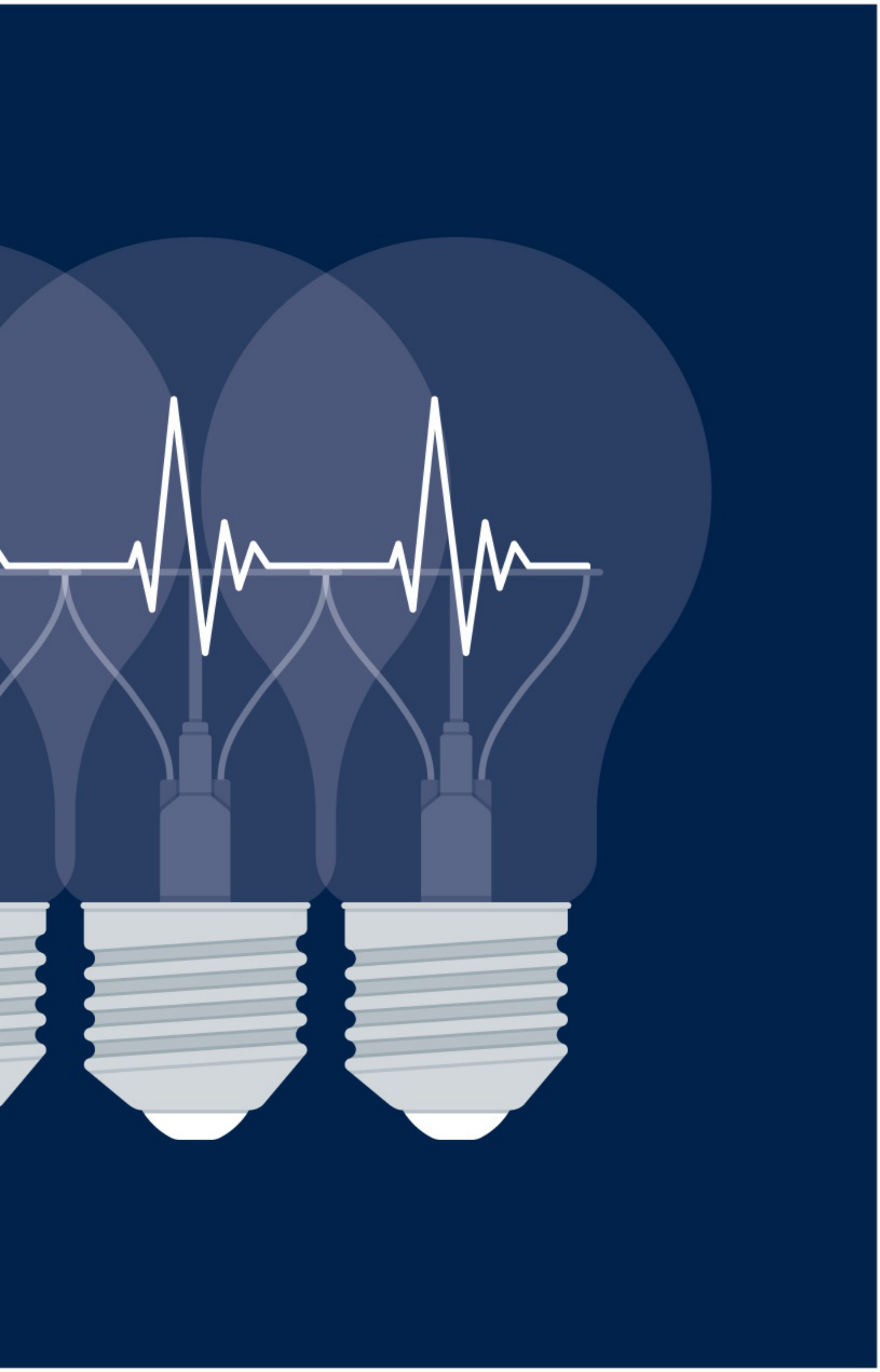
CARDIAC SURGERY IS one of medicine's modern miracles. In an operating room no larger than many household kitchens, a patient is rendered functionally dead—the heart no longer beating, the lungs no longer breathing—while a surgical team repairs or replaces damaged arteries or valves. A week later, the patient walks out of the hospital.

The miracle is a testament to medical technology—but also to incredible teamwork. A cardiac surgical team includes an array of specialists who need to work in close cooperation for the operation to succeed. A single error, miscommunication, or slow response can have disastrous consequences. In other words, surgical teams are not all that different from the cross-functional teams that in recent years have become crucial to business success.

We studied how surgical teams at 16 major medical centers implemented a difficult new procedure for performing cardiac surgery. What we found sheds light on one of the key determinants of team performance: a team's ability to adapt to a new way of working. In corporate settings, teams frequently have to learn new technologies or processes that are designed to improve performance. Often, however, things get worse—sometimes for a long time—before they get better. Team members may find it hard to break out of deeply ingrained routines. Or they may struggle



Illustration by PÂTÉ



to adjust to new roles and communication requirements.

When a product development team adopts computer-aided design tools, for example, designers, test engineers, process engineers, and even marketers have to learn the technology. But they also have to create and become comfortable with entirely new relationships, working collaboratively instead of making contributions individually and then handing pieces of the project off to the next person.

Most teams become proficient at new tasks or processes over time. But time is a luxury few teams—or companies—have. If you move too slowly, you may find that competitors are reaping the benefits of a new technology while you're still in the learning stages or that an even newer technology has superseded the one you're finally integrating into your work. The challenge of team management these days is not simply to execute existing processes efficiently. It's to implement new processes—as quickly as possible.

Whether in a hospital or an office park, getting a team up to speed isn't easy. As a surgeon on one of the teams we studied wryly put it, the new surgical procedure represented "a transfer of pain—from the patient to the surgeon." But if that came as no surprise, we *were* surprised at some of the things that helped, or didn't help, certain teams learn faster than others. An overriding lesson was that the most successful teams had leaders who actively managed their teams' learning efforts. That finding is likely to pose a challenge in many areas of business where, as in medicine, team leaders are chosen more for their technical expertise than for their management skills.

## Teamwork in Operation

A conventional cardiac operation, which typically lasts two to four hours, unites four professions and a battery of specialized equipment in a carefully

## Idea in Brief

**NEW WAYS OF WORKING**
One challenge of team management is to implement new processes as quickly as possible—which can be highly disruptive, regardless of the industry. The authors studied how surgical teams implemented a difficult new procedure for performing cardiac surgery to discover how teams learn, and why some learn faster than others.

**CREATING A LEARNING TEAM**
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:

- They were *designed for learning.*
- Their leaders *framed the challenge* to motivate learning.
- An *environment of psychological safety* fostered communication and innovation.

**THE FINDINGS**
Team leaders must become adept at creating learning environments, and senior managers must look beyond technical competence alone to tap leaders who can manage and motivate teams of disparate specialists.

choreographed routine. The surgeon and the surgeon's assistant are supported by a scrub nurse, a cardiac anesthesiologist, and a perfusionist—a technician who runs the bypass machine that takes over the functions of the heart and lungs. A team in a typical cardiac surgery department performs hundreds of open-heart operations a year. Consequently, the well-defined sequence of individual tasks that constitute an operation becomes so routine that team members often don't need words to signal the start of a new stage in the procedure; a mere look is enough.

Open-heart surgery has saved countless lives, but its invasiveness—the surgeon must cut open the patient's chest and split the breastbone—has meant a painful and lengthy recovery. Recently, however, a new technology has enabled surgical teams to perform "minimally invasive cardiac surgery" in which the surgeon works through a relatively small incision between the ribs. The procedure, introduced in hospitals in the late 1990s, held out the promise of a much shorter and more pleasant recovery for thousands of patients—and a potential competitive advantage for the hospitals that adopted it. (For a description of the procedure, see the sidebar "A New Way to Mend a Broken Heart.")

Although the scene and players remain the same, the new technology significantly alters the nature of the surgical team's work. Obviously, individual team members need to learn new tasks. The surgeon, with the heart no longer laid out in full view, has to operate without the visual and tactile cues that typically guide this painstaking work. The anesthesiologist has to use ultrasound imaging equipment, never before a part of cardiac operations. But the mastery of new tasks isn't the only challenge. In the new procedure, a number of familiar tasks occur in a different sequence, requiring a team to unlearn the old routine before learning the new one.

More subtly, the new technology requires greater interdependence and communication among team members. For example, much of the information about the patient's heart that the surgeon traditionally gleaned through sight and touch is now delivered via digital readouts and ultrasound images displayed on monitors out of his or her field of vision. Thus the surgeon must rely on team members for essential information, disrupting not only the team's routine but also the surgeon's role as order giver in the operating room's tightly structured hierarchy.

## Isolating the "Fast Factors"

The 16 teams we studied were among those that adopted this demanding new procedure. Given its complexity, they exercised great care in carrying it out, checking and double-checking every step. As a result, the rate of deaths and serious complications was no higher than for conventional procedures. But the teams were taking too long. At every hospital we studied, operations using the new technology initially took two to three times longer than conventional open-heart procedures.

Time is important in cardiac surgery. Long operations put patients at risk and strain operating teams, both mentally and physically. And with operating-room time costly and profit margins for

cardiac surgery relatively high, cash-strapped hospitals want to maximize the number of operations cardiac teams perform daily.

As teams at the various hospitals struggled with the new procedure, they did get faster. This underscored one of the key tenets of learning, that the more you do something, the better you get at it. But a striking fact emerged from our research: The pace of improvement differed dramatically from team to team. Our goal was to find out what allowed certain teams to extract disproportionate amounts of learning from each increment of experience and thereby learn more quickly than their counterparts at other hospitals.

The adoption of the new technology provided an ideal laboratory for rigorously studying how teams learn and why some learn faster than others. We collected detailed data on 660 patients who underwent minimally invasive cardiac surgery at the 16 medical centers, beginning with each team's first such operation. We also interviewed in person all staff members who were involved in adopting the technology. Then we used standard statistical methods to analyze how quickly procedure times fell with accumulated experience, adjusting for variables that might influence operating time, such as the type of operation and the patient's condition. Using these and other data, we also assessed the technology implementation effort at each hospital.

Because teams doing conventional cardiac surgery follow widely accepted protocols and use standardized technology, the teams adopting the new procedure started with a common set of practices and norms. They also received the same three-day training program in the new technology. This consistency among teams in both their traditional work practices and their preparation for the new task helped us zero in on the "fast factors" that allowed some teams to adopt the technology relatively quickly.

## A New Way to Mend a Broken Heart

The cardiac surgery technology we studied is a modification of conventional cardiac surgery, but it requires the surgical team to take a radical new approach to working together.

The standard cardiac operation has three major phases: opening the chest, stopping the heart, and placing the patient on a heart-lung bypass machine; repairing or replacing damaged coronary arteries or valves; and weaning the patient from bypass and closing the chest wound. The minimally invasive technology, adopted by more than 100 hospitals beginning in the late 1990s, provides an alternative way to gain access to the heart. Instead of cutting through the breastbone, the surgeon uses special equipment to work on the heart through an incision between the ribs.

The small size of the incision changes open-heart surgery in several ways. For one thing, the surgeon has to operate in a severely restricted space. For another, the tubes that connect the patient to the bypass machine must be threaded through an artery and vein in the groin instead of being inserted directly into the heart through the incision. And a tiny catheter with a deflated balloon must be threaded into the aorta, the body's main artery, and the balloon inflated to act as an internal clamp. In conventional cardiac surgery, the aorta is blocked off with external clamps inserted into the open chest.

The placement of the internal clamp is an example of the greater coordination among team members required by the new procedure. Using ultrasound, the anesthesiologist works carefully with the surgeon to monitor the path of the balloon as it is inserted, because the surgeon can't see or feel the catheter. Correct placement is crucial, and the tolerances on balloon location are extremely low. Once the balloon clamp is in position, team members, including the nurse and the perfusionist, must monitor it to be sure it stays in place.

"The pressures have to be monitored on the balloon constantly," said one nurse we interviewed. "The communication with perfusion is critical. When I read the training manual, I couldn't believe it. It was so different from standard cases."

Perhaps it isn't surprising that adoption of the procedure—by all of the teams—took longer than expected. The company that developed the technology estimated that it would take surgical teams about eight operations before they were able to perform the new procedure in the same amount of time as conventional surgery. But for even the fastest-learning teams in our study, the number was closer to 40.

## Rethinking Conventional Wisdom

We were surprised by some of the factors that turned out not to matter in how quickly teams learned. For instance, variations among the teams in educational background and surgical experience didn't necessarily have any impact on the steepness of the learning curve. (For a compar-

# A Tale of Two Hospitals

The leader of the team implementing the minimally invasive surgical procedure at Chelsea Hospital was a renowned cardiac surgeon who had significant experience with the new technology. Despite that apparent advantage, his team learned the new procedure more slowly than the teams at many other hospitals, including Mountain Medical Center, where the team leader was a relatively junior surgeon with an interest in trying new techniques. Why?

**The new technology as a plug-in component.** Chelsea Hospital (the names of the hospitals are pseudonyms) is an urban academic medical center that at the time of our study had just hired a new chief of cardiac surgery. He seemed an ideal choice to lead the department's adoption of the new technology, as he had used the new procedure in numerous operations at another hospital (one that was not in our sample). Administrators at Chelsea supported the surgeon's request to invest in the new technology and agreed to send a team to the supplier company's formal training program.

The surgeon, however, played no role in selecting the team, which was assembled according to seniority. He also didn't participate in the team's dry run prior to the first case. He later explained that he didn't see the technique as particularly challenging, having experimented for years with placing a balloon in the aorta. Consequently, he explained, "it was not a matter of training myself. It was a matter of training the team." Such training, though, wouldn't require a change in his style of communicating with the team, he said: "Once I get the team set up, I never look up [from the operating field]. It's they who have to make sure that everything is flowing."

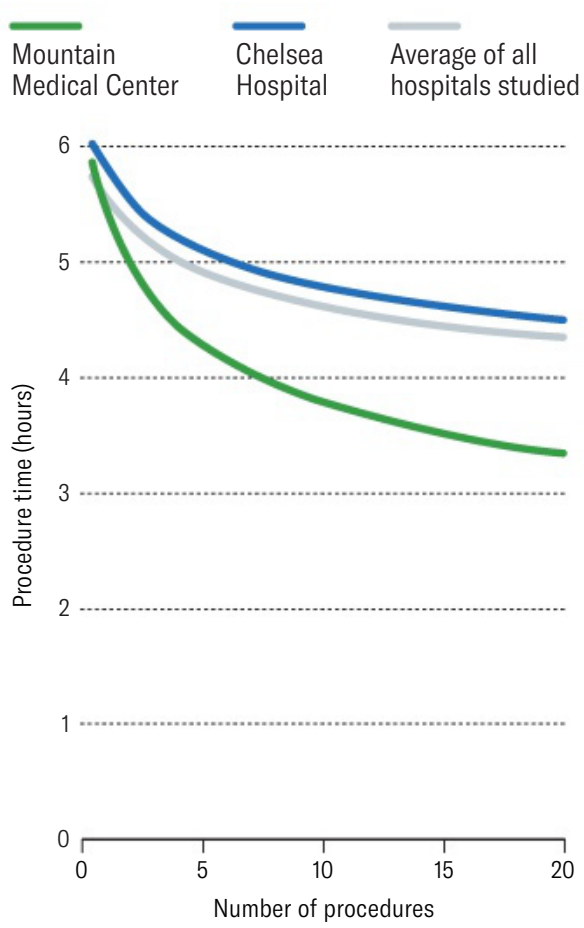
Mastering the new technology proved unexpectedly difficult for all team members. After almost 50 cases at Chelsea, the surgeon said: "It doesn't seem to be getting that much better. We're a little slicker, but not as slick as I would like to be." As at other sites, team members at Chelsea reported being amazed by the extent to which the procedure imposed a need for a new style and level of communication. But they were less confident than team members at other hospitals that they would be able to put these into practice.

**The new technology as a team innovation project.** Mountain Medical Center is a respected community hospital serving a small city and the surrounding rural area. Although the cardiac surgery department didn't have a history of undertaking major research or cardiac surgical innovation, it had recently hired a young surgeon who took an interest in the new procedure. More than any of the team leaders at other hospitals, this surgeon recognized that implementing the technology would require the team to adopt a very different style. "The ability of the surgeon to allow himself to become a partner, not a dictator, is critical," he said. "For example, you really do have to change what you're doing [during an operation] based on a suggestion from someone else on the team. This is a complete restructuring of the [operating room] and how it works."

Team members, who were picked by the surgeon based on their experience working together, responded enthusiastically to his approach. One noted that the "hierarchy [has] changed," creating a "free and open environment with input from everybody." Said another: "I'm so excited about [the new procedure]. It has been a model, not just for this hospital but for cardiac surgery. It is about what a group of people can do." He explained that the team got better because "the surgeon said, 'Hey, you guys have got to make this thing work.' That's a great motivator."

In the end, despite the team leader's modest reputation and the hospital's limited experience in implementing new cardiac procedures, Mountain Medical was one of the two hospitals in our study that learned the new technology most quickly.

## Hospitals Compared




Note: Procedure times have been adjusted for the type of operation and severity of the patient's illness. The curves are trend lines that reflect the average improvement in procedure times.

**The challenge of team management these days is to implement new processes—as quickly as possible.**

ison of teams at two medical centers, see the sidebar "A Tale of Two Hospitals.")

We also turned up evidence that countered several cherished notions about the ways organizations—and, by implication, teams—adopt new technologies and processes. For one thing, high-level management support for the minimally invasive technology wasn't decisive in hospitals' success in implementing it. At some hospitals, implementation was unsuccessful despite strong vocal and financial support from senior officials. At others, teams enjoyed tremendous success despite support that was ambivalent at best. For example, one surgeon initially had difficulty convincing hospital administrators that the new procedure should be tried there; they saw it as a time-consuming distraction that might benefit surgeons but would further tax the overworked hospital staff. Even so, the surgeon's team became one of the more successful in our study.

The status of the surgeon who led the team also didn't seem to make a difference. Conventional wisdom holds that a team charged with implementing a new technology or process needs a leader who has clout within the organization—someone who can "make things happen" in support of the team's efforts. But we saw situations in which department heads and world-renowned cardiac surgeons couldn't get their teams to adapt to the new operating routine. At other sites, relatively junior surgeons championed the new technology and, with little support from more senior colleagues, brought their teams quickly along the learning curve.

Finally, the debriefs, project audits, and after-action reports so often cited as key to learning weren't pivotal to the success or failure of the teams we studied. In fact, few surgical teams had time for regular, formal reviews of their work. At one hospital, such reviews were normally conducted at midnight over take-out Chinese food. Some research-oriented academic medical centers did aggregate performance data and analyze the data retrospectively, but teams at these hospitals didn't necessarily improve at faster rates. Instead, as we will discuss, the successful teams engaged in real-time learning—analyzing and drawing lessons from the process while it was under way.

## Creating a Learning Team

We found that success in learning came down to the way teams were put together and how they drew on their experiences—in other words, on the teams' design and management. Teams that learned the new procedure most quickly shared three essential characteristics. They were designed for learning; their leaders framed the challenge in such a way that team members were highly motivated to learn; and the leaders' behavior created an environment of psychological safety that fostered communication and innovation.

**Designing a team for learning.** Team leaders often have considerable discretion in determining, through choice of members, the group's mix of skills and areas of expertise. The teams in our study had no such leeway—cardiac surgery requires a surgeon, an anesthesiologist, a perfusionist, and a scrub nurse. But the leaders who capitalized on the opportunity to choose particular individuals from those specialties reaped significant benefits.

At one extreme, the leaders—the surgeons—took little initiative in choosing team members. At one hospital, the staff members chosen for training in the procedure were, essentially, those who happened to be available the weekend of the training session.

In a few teams, however, selection was much more collaborative, and the choices were carefully weighed. An anesthesiology department head, for instance, might get significant input from the cardiac surgeon before choosing an anesthesiologist. Selection was based not only on competence but also on such factors as the individual's ability to work with others, willingness to deal with new and ambiguous situations, and confidence in offering suggestions to team members with higher status.

Another critical aspect of team design was the degree to which substitutions were permitted. In conventional surgery, all members of the surgical department are assumed to be equally capable of doing the work of their particular discipline, and team members within a discipline are readily substituted for one another. It's logical to assume that training additional team members would allow for more cases to be performed using the new procedure, but we found that such flexibility has a cost. Reductions in average procedure time (adjusted for patient complexity) were faster at hospitals that kept the original teams intact.

At one hospital where several additional members of the nursing, anesthesiology, and perfusion staff were trained in the new procedure shortly

## Becoming a Learning Leader

Creating an environment conducive to team learning isn't hard, but it does require a team leader to act quickly. Social psychologists have shown that people watch their supervisors carefully for cues on how team members are expected to behave. These impressions form early in the life of a group or project. To set the right tone, team leaders must:

**Be accessible.** In order to make clear that others' opinions are welcomed and valued, the leader must be available, not aloof. One nurse in our study commented about a successful team leader: "He's in his office, always just two seconds away. He can always take five minutes to explain something, and he never makes you feel stupid."

**Ask for input.** An atmosphere of information sharing can be reinforced by an explicit request from the team leader for contributions from members. The surgeon on one successful team "told us to immediately let him know—let everyone know—if anything is out of place," said the team's perfusionist.

**Serve as a "fallibility model."** Team leaders can further foster a learning environment by admitting their mistakes to the team. One surgeon in our study explicitly acknowledged his shortcomings. "He'll say, 'I screwed up. My judgment was bad in that case,'" a team member reported. That signaled to others on the team that errors and concerns could be discussed without fear of punishment.

after adoption, the makeup of the team changed with almost every operation. Again and again, teams had to learn from scratch how to work together. After the tenth time, the surgeon demanded a fixed team whenever he performed the new procedure. Operations went more smoothly after that.

**Framing the challenge.** When discussing the new procedure with team members, the leaders of teams that successfully implemented the new technology characterized adopting it as an organizational challenge rather than a technical one. They emphasized the importance of creating new ways of working together over simply acquiring new individual skills. They made it clear that this reinvention of working relationships would require the contribution of every team member.

By all accounts, the difficulty of the new procedure makes cardiac surgery even more stressful than usual, at least initially. But many surgeons didn't acknowledge the higher level of stress or help their teams internalize the rationale for taking on this significant new challenge. Instead, they portrayed the technology as a plug-in component in an otherwise unchanged procedure. As one surgeon told us: "I don't see what's really new here. All the basic components of this technology have been around for years." This view led to frustration and resistance among team members. Another surgeon, who characterized the procedure as primarily a technical challenge for surgeons, was assisted by a nurse who, with grim humor, said she would rather slit her wrists than do the new procedure one more time. Her attitude was shared by many we interviewed.

But that attitude wasn't universal. At some hospitals, staff members were excited to be "part of something new," as one expressed it. A nurse reported that she felt honored to be a member of the team, in part because it was "exciting to see patients do so well." The leaders of teams with positive attitudes toward the challenge explicitly acknowledged that the task was difficult and emphasized the importance of each person's contribution. The surgeon who talked of the transfer of pain from the patient to the surgical team helped his team by highlighting, with light humor, the frustration they all faced in this learning challenge.

**Creating an environment of psychological safety.** Teams, even more than individuals, learn through trial and error. Because of the many interactions among members, it's very difficult for teams to perform tasks smoothly the first time, despite well-designed training programs and extensive individual preparation. The fastest-learning teams in our study tried different approaches in an effort to shave time from the operation without endangering patients. Indeed, team members uniformly emphasized the importance of experimenting with new ways of doing things to improve team performance—even if some of the new ways turned out not to work.

As we have noted, this learning in action proved to be more effective than the after-action analysis so often touted as key to organizational learning. Real-time learning occasionally yielded insights that might have been lost had a team member waited for a formal review session. During a procedure at one hospital, for instance, a nurse spontaneously suggested solving a surgical problem with a long-discarded type of clamp affectionately known as the "iron intern." The use of the nearly forgotten medical device immediately became part of that team's permanent routine.

When individuals learn, the process of trial and error—propose something,

try it, then accept or reject it—occurs in private. But on a team, people risk appearing ignorant or incompetent when they suggest or try something new. This is particularly true in the case of technology implementation, because new technologies often render many of the skills of current "experts" irrelevant. Neutralizing the fear of embarrassment is necessary in order to achieve the robust back-and-forth communication among team members required for real-time learning.

Teams whose members felt comfortable making suggestions, trying things that might not work, pointing out potential problems, and admitting mistakes were more successful in learning the new procedure. By contrast, when people felt uneasy acting this way, the learning process was stifled.

Although the formal training for the new procedure emphasized the need for everyone on the team to speak up with observations, concerns, and questions while using the technology, such feedback often didn't happen. One team member even reported being upbraided for pointing out what he believed to be a life-threatening situation. More typical was the comment of one nurse: "If you observe something that might be a problem, you are obligated to speak up, but you choose your time. I will work around the surgeon and go through his PA [physician's assistant] if there is a problem."

But other teams clearly did foster a sense of psychological safety. How? Through the words and actions of the surgeons who acted as team leaders—not surprising, given the explicit hierarchy of the operating room. At one hospital, the surgeon told team members that they had been selected not only because of their skills but also because of the input they could provide on the process. Another surgeon, according to one of his team members, repeatedly told the team: "I need to hear from you because I'm likely to miss things." The repetition itself was important. If they hear it only once, people tend not to hear—or believe—a message that contradicts old norms.

## Leading to Learn

While our research focused on the environment of cardiac surgery, we believe our findings have implications that go well beyond the operating room. Organizations in every industry encounter challenges similar to those faced by our surgical teams. Adopting new technologies or new business processes is highly disruptive, regardless of industry. Like the surgical teams in our study, business teams that use new technology for the first time must deal with a learning curve. And the learning that takes place is not just technical. It is also organizational, with teams confronting problems similar to those encountered by the surgical teams we studied: issues of status and deeply ingrained patterns of communication and behavior.

Implementing an enterprise resource planning system, for example, involves a lot of technical work in configuring databases, setting operational parameters, and ensuring that the software runs properly on a given hardware platform. The hard part for many companies, though, is not the technical side but the fact that ERP systems completely change the dynamics—the team relationships and routines—of the organization. As our study shows, it takes time for teams to learn how decisions should be made and who should talk to whom and when. It takes even longer if people don't feel comfortable speaking up.

There's yet another parallel between business teams and surgical teams. Business teams are often led by people who have been chosen because of their technical skills or expertise in a particular area: Outstanding engineers are selected to lead product development projects, IT experts lead systems implementations, and so on. These experts often find themselves in a position similar to that of the cardiac surgeons. If their teams are to succeed, they must transform themselves from technicians into leaders who can manage teams in such a way that they become learning units.

Thus the key finding of our study—that teams learn more quickly if they are explicitly managed for learning—imposes a significant new burden on many team leaders. Besides maintaining technical expertise, they need to become adept at creating environments for learning. (See the sidebar "Becoming a Learning Leader.") This may require them—like surgeons who give up dictatorial authority so that they can function as partners on the operating teams—to shed some of the trappings of their traditional status.

The importance of a team leader's actions suggests that the executives responsible for choosing team leaders need to rethink their own approaches. For instance, if an executive views a team's challenge as purely technical, he or she is more likely to appoint a leader based solely on technical competence. In the worst (and not unfamiliar) case, this can lead to disaster; we've all known superstar technocrats with no interpersonal skills. Clearly, there is a danger in erring too far in the other direction. If team leaders are technically incompetent, they're not only liable to make bad decisions but they also lack the credibility needed to motivate a team. But senior managers need to look beyond technical competence and identify team leaders who can motivate and manage teams of disparate specialists so that they are able to learn the skills and routines needed to succeed.

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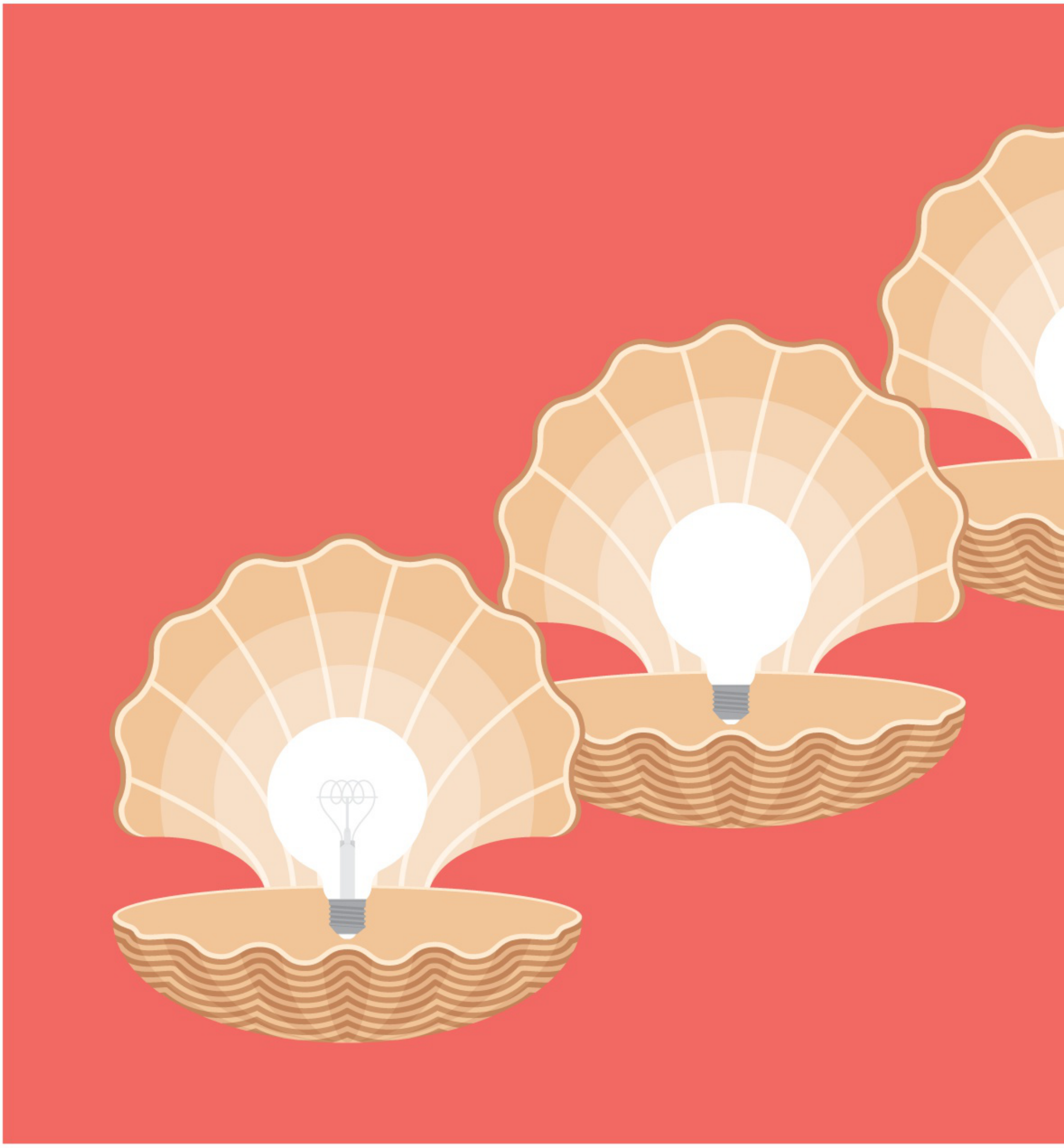

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# The Best Leaders Are Great Teachers

They personalize instruction to help their employees soar.

→ by SYDNEY FINKELSTEIN

KUNDAPUR VAMAN KAMATH was a teacher. But he didn't work at a school or stand in front of a class. Instead, he delivered his lessons at the office—to the employees who served under him during his four decades as a senior executive at, and then CEO of, India's ICICI Bank. Whether he was offering tips on stakeholder communication or explaining the importance of ambitious goals, Kamath treated each day as an opportunity to provide his direct reports with a customized master class in management. Over time, this approach transformed the company into a hothouse of leadership talent, accelerating its growth. ICICI became one of India's largest, most innovative banks, and Kamath has been credited with molding a whole generation of the country's banking executives.

I've spent more than 10 years studying world-class leaders like Kamath to determine what sets them apart from typical leaders. One big surprise was the extent to which these star managers emphasize ongoing, intensive one-on-one tutoring of their direct reports, either in person or virtually, in the course of daily work. Cognitive psychologists, teachers, and educational consultants have long recognized the value of such personalized instruction: It fosters not just competence or compliance but mastery of skills and independence of thought and action. However, it's unusual to see this type of teaching

*Illustration by* **PÂTÉ**

employed in a business context. Indeed, I've found that most leaders fall back on more-traditional employee management and development practices, such as giving formal reviews, making professional introductions, advising on career plans, acting as sounding boards, and helping to navigate internal politics. Although some managers do occasionally find themselves imparting a lesson or two, few give it much thought or make it a core part of their job.

By contrast, the exceptional leaders I studied were teachers through and through. They routinely spent time in the trenches with employees, passing on technical skills, general tactics, business principles, and life lessons. Their teaching was informal and organic, flowing out of the tasks at hand. And it had an unmistakable impact: Their teams and organizations were some of the highest-performing in their sectors.

Fortunately, it doesn't take special talent or training or even a lot of time to teach in the same way that star managers do. Simply follow the precedent they've set. Learn what to teach, when to teach, and how to make your lessons stick.

## Unforgettable Lessons

Great leaders teach on a range of topics, but their best lessons—so relevant and useful that direct reports are often still applying and sharing them years later—fall into three buckets:

**Professionalism.** A manager who worked for real estate CEO and investor Bill Sanders told me that Sanders often gave advice on conducting oneself professionally. He explained how to effectively prepare for meetings, how to communicate a vision when attempting to sell, and how to look at the industry not as it is but as it could become. Protégés of Kamath have said that he showed them how to mentor subordinates in an appropriate and constructive manner—guiding them while still respecting their independence. Other managers spoke of learning from their leaders the value of emphasizing integrity and high ethical standards. "He started with credibility," former Burger King CEO Jeff Campbell said of the late Norman Brinker, a legend in fast casual dining and one of Campbell's early bosses. "It's clear that he really cared about how guests felt and what kind of people he had working for him." An executive who reported to Tommy Frist Jr. when he was the CEO of Hospital Corporation of America (HCA) recounted that Frist sometimes lectured doctors about the need to put patients first. "Your duty," he would tell them, "is to do just what you learned when you took the oath. If you ever have a business manager call you and encourage you to do something different from what you think is right, you call me, because the day we start doing that, we start shutting hospitals."

**Points of craft.** You might think that the most senior leaders would leave instruction about the nuts and bolts of their business to others. But stars like former hedge fund CEO Julian Robertson and fashion icon Ralph Lauren trained their people in the same highly disciplined approach that they employed themselves—one rooted in extensive knowledge and experience. As a direct report said of Robertson, he "could, at any given time, know so much about so many different companies that an average person's head would spin." Mindy Grossman, CEO of Weight Watchers and a former executive at Polo Ralph Lauren, remembered standing in showrooms with Lauren and listening to him explain how to achieve authenticity and integrity in fashion whether they were "creating a $24 T-shirt or a $6,000 crocodile skirt." Similarly, employees who worked at Oracle under Larry Ellison noted that when he was running the company, he constantly shared his technical knowledge of software architecture. And Jim Sinegal, cofounder and retired CEO of Costco Wholesale, recalled the way his former boss, Price Club founder Sol Price, routinely tried to build his employees' expertise in the details of retailing: "We were tested every day, and if something wasn't done properly, he'd be certain to show us how to do it."

**Life lessons.** Of course, great leaders don't limit themselves to teaching about work—they also proffer deeper wisdom about life. That might seem like overstepping, but I discovered that managers found it extremely helpful. For example, an HCA physician interviewed by my research team remembered his former boss Frist showing him a note card on which he had written his near-term goals, intermediate-term goals, and long-term goals. In a lesson the doctor never forgot, Frist explained that he refined those goals each day and was surprised that more people didn't perform such an exercise.

Another example comes from Mike Gamson, a senior vice president at LinkedIn, who told *Business Insider* that his first meeting with the company's new CEO, Jeff Weiner, involved a two-hour discussion of Buddhist principles. Gamson said he wanted to be a more empathetic leader, and Weiner asked

why he wasn't instead aiming to be more compassionate. The pair explored the difference between those concepts, with recourse to a religious parable. Gamson came to see that both types of leaders understand other people's perspectives. However, managers who empathize run the risk of getting drawn into the emotions of situations, whereas compassionate leaders are more likely to remain calm and clearheaded and thus more capable of rendering assistance. That lesson from Weiner changed Gamson's entire leadership philosophy.

## Perfect Timing

*When* leaders teach is almost as important as what they teach. The successful leaders I studied didn't wait for formal reviews or even check-ins. They seized and created opportunities to impart wisdom.

**On the job.** When Sinegal was working with Price at Price Club, he knew that lessons could come at any time. According to Sinegal, Price "spent day and night teaching," whether giving advice on retail tactics or discussing how to be a better manager. Chase Coleman III, a protégé of Robertson's, said that Robertson was similarly "out to teach you a lesson" in every interaction, showing "how to do things and how to run a business."

Some leaders ensure on-the-job learning by working in open offices that allow them to observe employees, project accessibility, and encourage frequent conversations. Others opt for more-conventional offices but make a point of maintaining open-door policies and spending lots of time circulating among their staff, which means they can offer lessons on the spur of the moment—when people can best process and embrace them. A good example of this was relayed to me by Campbell, the Brinker disciple. One evening at the office, Brinker brought up a memo Campbell had recently sent to a team member directing him in some detail to take a specific action. "You know," Campbell vividly recalled his boss saying, "this is a thought for you: The next time you're going to tell someone like Bill to do something, try to give him the objective and leave it up to him to figure out how to do it. You'll find out how smart he is or isn't, and he'll probably come up with some things that you wouldn't have thought of yourself."

**In manufactured moments.** Great leaders don't wait for the "perfect" opening. They create teaching moments—often by taking protégés out of the office environment to more-relaxed settings or unusual places. Frist, an avid pilot, sometimes invited people up in his plane. Longtime *Philadelphia Inquirer* executive editor Gene Roberts would treat his direct reports to dinner and offer "little hints" on how to handle certain situations, one employee recalled. They were the "best seminar you could ever have," another Roberts-trained manager told me. An ICICI executive who often caught rides home from the office with Kamath discovered that this was one of his boss's favorite times to teach. Kamath would welcome all kinds of questions and offer reflections on everything from his business philosophy to his personal spirituality.

Famed chef and foodie entrepreneur René Redzepi, co-owner of the restaurant Noma in Copenhagen, takes off-site teaching to an extreme. In 2012 he relocated his entire staff to London to create a 10-day pop-up establishment. A few years later, the team members went to Tokyo for two months. The next year they moved to Sydney, Australia, for 10 weeks, and in 2017 they ran a pop-up in Tulum, Mexico, for seven weeks. The goal, Redzepi explained, was "to learn by exploring a different place and meeting new people." He took personal responsibility for ensuring that everyone was broadening his or her culinary horizons. Back home, he said, he and the staff

## Idea in Brief

**ELITE LEADERS**
Research shows that the best leaders reach beyond traditional employee management and development practices and provide on-going tutoring throughout the day.

**LEARNING TO TEACH**
The teaching that stays with direct reports has to do with professionalism (how to prepare for meetings, to communicate a vision, etc.), deep knowledge of the nuts and bolts of the business, and more general life lessons. And because great leaders spend time in the trenches with their employees, they can identify more easily organic opportunities to teach.

**THE PAYOFF**
The value of this type of teaching extends beyond competence and independent thinking. Such leaders' teams and firms were among the highest performing in their areas.

worked "to apply all these new learnings to the everyday routine."

## Expert Delivery

No matter when or where they chose to teach their lessons, the leaders I studied were smart enough not to pompously pontificate or pummel employees with too much information. They deployed these more-nuanced techniques:

**Customized instruction.** Best-in-class educators embrace personalization, tailoring lessons and support to match students' individual learning profiles. And great business leaders do the same thing. They know that each subordinate should be taught in a way that suits his or her particular needs, personality, and developmental trajectory. Craigslist founder Craig Newmark remembered getting that type of targeted advice from his former boss at a local IBM branch office after an incident in which he behaved like a know-it-all. Pulling him aside, his boss quietly said, "Don't correct people when it matters little."

A senior manager who worked for Sanders described a similar encounter. The man had used the phrase "you guys" in an important—and successful—meeting with potential business partners. Afterward, in private, Sanders chastised him for the informal language. "He put his arm around me like a father," the executive recalled, and made it clear that as good as the meeting was, "it could have been even better." He has since made a point of expunging "you guys" from his business vocabulary.

Robertson was a master at delivering targeted advice and, more generally, at customizing his ongoing interactions with protégés. "He was very good at understanding what motivated people and how to extract maximum performance out of them," Coleman explained. "For some people, it was by encouraging them, and for other people, it was by making them feel less comfortable. He would tailor his approach based on what he thought would be most effective."

**Questions.** Star leaders also take a page from Socrates and teach by asking sharp, relevant questions, often in the course of furthering their own learning. According to a colleague at HCA, Frist "was always asking probing questions to find out what was happening." He did it to "educate himself, not to make you feel like you were doing something appropriate or inappropriate. It was an educational venture."

Restaurateur Brinker likewise "was always asking questions," said a former senior executive who reported to him. "'What do you think about this? What do you think about that? If this were your restaurant, what would you do differently?' He pushed his people to do the same thing: 'Have you talked to employees? What kind of guest feedback do you have?'"

**Modeling.** Another powerful and common teaching tactic deployed by executives I studied, used in conjunction with the other techniques I've mentioned, was the simplest: leading by example. Andrew Golden, president of the Princeton University Investment Company, reported that his former boss, Yale's chief investment officer David Swensen, was known for assuring ambitious new hires that he would do everything he could to help them not only develop but also move on to new jobs when they were ready—which is exactly how Golden ended up in his current role. He and other Swensen disciples learned the strategy by watching Swensen employ it, and now they practice it themselves. "It's a great recruiting tool," Golden noted.

One of Frist's direct reports told me that he learned how "to be a lot more adventurous" just by being around Frist, who was "incredibly creative in how the company was built and put together." Another Frist manager commented: "You learned as much from watching Tommy" as you did from listening to him. Sometimes, just seeing the right example in front of you is all it takes to pick up new behaviors.

ULTIMATELY, GREAT LEADERS understand that even a little bit of high-quality, one-on-one teaching can yield great dividends. As the boss, you command your employees' attention, and the lessons you impart will be more relevant, better-timed, and more personalized than content delivered in traditional leadership-training programs. And when you embrace the role of teacher, you build loyalty, turbocharge your team's development, and drive superior business performance.

Teaching is not merely an "extra" for good managers; it's an integral responsibility. If you're not teaching, you're not really leading.

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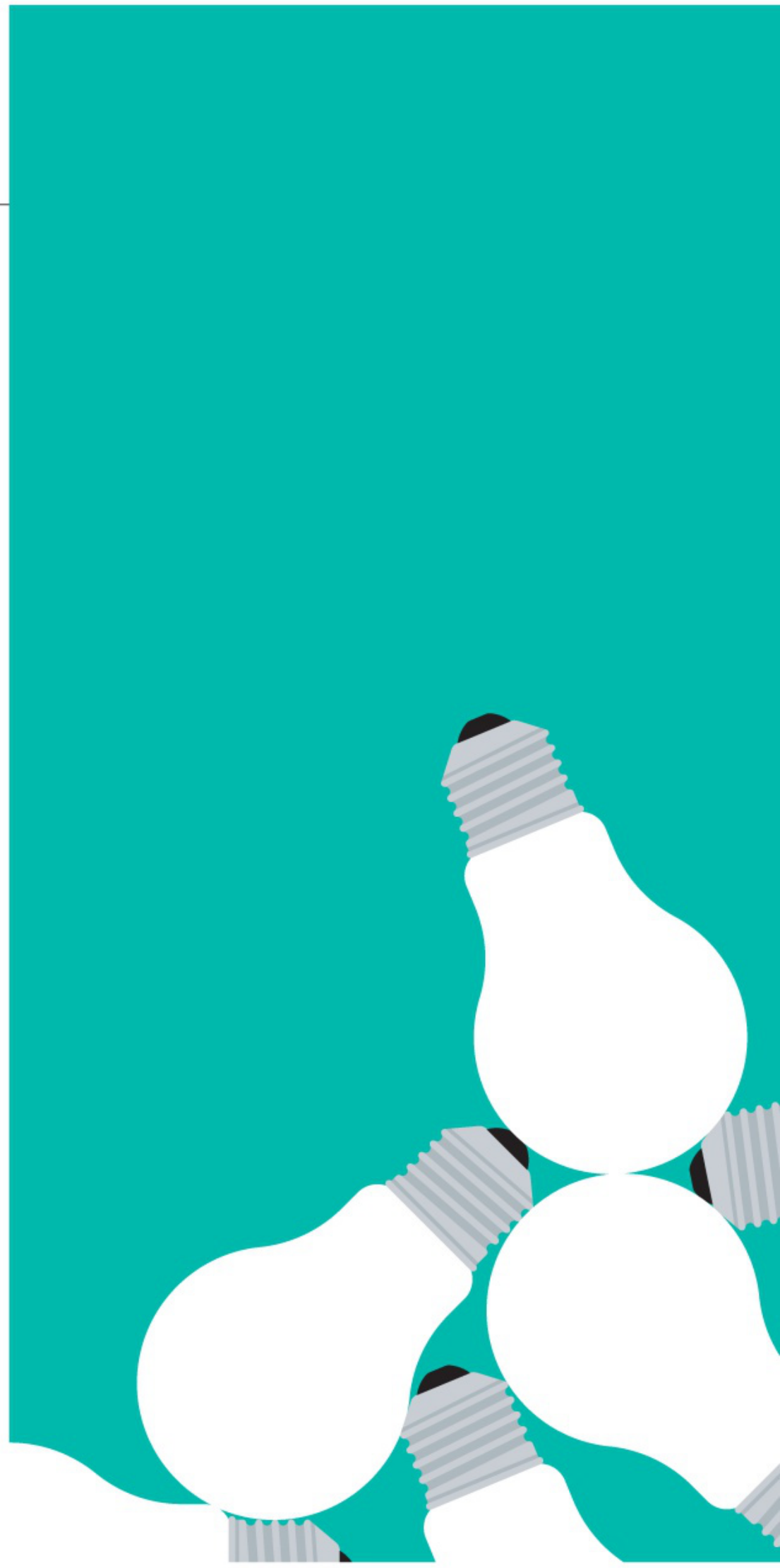
# Teaching Smart People How to Learn

Every company faces a learning dilemma: The smartest people find it the hardest to learn.

→ by CHRIS ARGYRIS



ANY COMPANY THAT ASPIRES to succeed in the tougher business environment of the 1990s must first resolve a basic dilemma: success in the marketplace increasingly depends on learning, yet most people don't know how to learn. What's more, those members of the organization that many assume to be the best at learning are, in fact, not very good at it. I am talking about the well-educated, high-powered, high-commitment professionals who occupy key leadership positions in the modern corporation.



*Illustration by* **PÂTÉ**

Most companies not only have tremendous difficulty addressing this learning dilemma; they aren't even aware that it exists. The reason: they misunderstand what learning is and how to bring it about. As a result, they tend to make two mistakes in their efforts to become a learning organization.

First, most people define "learning" too narrowly as mere problem solving, so they focus on identifying and correcting errors in the external environment. Solving problems is important. But if learning is to persist, managers and employees must also look inward. They need to reflect critically on their own behavior, identify the ways they often inadvertently contribute to the organization's problems, and then change how they act. In particular, they must learn how the very way they go about defining and solving problems can be a source of problems in its own right.

I have coined the terms "single loop" and "double loop" learning to capture this crucial distinction. To give a simple analogy: a thermostat that automatically turns on the heat whenever the temperature in a room drops below 68 degrees is a good example of single-loop learning. A thermostat that could ask, "Why am I set at 68 degrees?" and then explore whether or not some other temperature might more economically achieve the goal of heating the room would be engaging in double-loop learning.

Highly skilled professionals are frequently very good at single-loop learning. After all, they have spent much of their lives acquiring academic credentials, mastering one or a number of intellectual disciplines, and applying those disciplines to solve real-world problems. But ironically, this very fact helps explain why professionals are often so bad at double-loop learning.

Put simply, because many professionals are almost always successful at what they do, they rarely experience failure. And because they have rarely failed, they have never learned how to learn from failure. So whenever their single-loop learning strategies go wrong, they become defensive, screen out criticism, and put the "blame" on anyone and everyone but themselves. In short, their ability to learn shuts down precisely at the moment they need it the most.

The propensity among professionals to behave defensively helps shed light on the second mistake that companies make about learning. The common assumption is that getting people to learn is largely a matter of motivation. When people have the right attitudes and commitment, learning automatically follows. So companies focus on creating new organizational structures—compensation programs, performance reviews, corporate cultures, and the like—that are designed to create motivated and committed employees.

But effective double-loop learning is not simply a function of how people feel. It is a reflection of how they think—that is, the cognitive rules or reasoning they use to design and implement their actions. Think of these rules as a kind of "master program" stored in the brain, governing all behavior. Defensive reasoning can block learning even when the individual commitment to it is high, just as a computer program with hidden bugs can produce results exactly the opposite of what its designers had planned.

Companies can learn how to resolve the learning dilemma. What it takes is to make the ways managers and employees reason about their behavior a focus of organizational learning and continuous improvement programs. Teaching people how to reason about their behavior in new and more effective ways breaks down the defenses that block learning.

All of the examples that follow involve a particular kind of professional: fast-track consultants at major management consulting companies. But the implications of my argument go far beyond this specific occupational group. The fact is, more and more jobs—no matter what the title—are taking on the contours of "knowledge work." People at all levels of the organization must combine the mastery of some highly specialized technical expertise with the ability to work effectively in teams, form productive relationships with clients and customers, and critically reflect on and then change their own organizational practices. And the nuts and bolts of management—whether of high-powered consultants or service representatives, senior managers or factory technicians—increasingly consists of guiding and integrating the autonomous but interconnected work of highly skilled people.

## How Professionals Avoid Learning

For 15 years, I have been conducting in-depth studies of management consultants. I decided to study consultants for a few simple reasons. First, they are the epitome of the highly educated professionals who play an increasingly central role in all organizations. Almost all of the consultants I've studied have MBAs

from the top three or four U.S. business schools. They are also highly committed to their work. For instance, at one company, more than 90% of the consultants responded in a survey that they were "highly satisfied" with their jobs and with the company.

I also assumed that such professional consultants would be good at learning. After all, the essence of their job is to teach others how to do things differently. I found, however, that these consultants embodied the learning dilemma. The most enthusiastic about continuous improvement in their own organizations, they were also often the biggest obstacle to its complete success.

As long as efforts at learning and change focused on external organizational factors—job redesign, compensation programs, performance reviews, and leadership training—the professionals were enthusiastic participants. Indeed, creating new systems and structures was precisely the kind of challenge that well-educated, highly motivated professionals thrived on.

And yet the moment the quest for continuous improvement turned to the professionals' *own* performance, something went wrong. It wasn't a matter of bad attitude. The professionals' commitment to excellence was genuine, and the vision of the company was clear. Nevertheless, continuous improvement did not persist. And the longer the continuous improvement efforts continued, the greater the likelihood that they would produce ever-diminishing returns.

What happened? The professionals began to feel embarrassed. They were threatened by the prospect of critically examining their own role in the organization. Indeed, because they were so well paid (and generally believed that their employers were supportive and fair), the idea that their performance might not be at its best made them feel guilty.

Far from being a catalyst for real change, such feelings caused most to react defensively. They projected the blame for any problems away from themselves and onto what they said were unclear goals, insensitive and unfair leaders, and stupid clients.

Consider this example. At a premier management consulting company, the manager of a case team called a meeting to examine the team's performance on a recent consulting project. The client was largely satisfied and had given the team relatively high marks, but the manager believed the team had not created the value added that it was capable of and that the consulting company had promised. In the spirit of continuous improvement, he felt that the team could do better. Indeed, so did some of the team members.

The manager knew how difficult it was for people to reflect critically on their own work performance, especially in the presence of their manager, so he took a number of steps to make possible a frank and open discussion. He invited to the meeting an outside consultant whom team members knew and trusted—"just to keep me honest," he said. He also agreed to have the entire meeting tape-recorded. That way, any subsequent confusions or disagreements about what went on at the meeting could be checked against the transcript. Finally, the manager opened the meeting by emphasizing that no subject was off limits—including his own behavior.

## Idea in Brief

**THE PROBLEM**

Success in today's marketplace increasingly depends on learning, yet many people don't know how to learn. In fact, well-educated, high-achieving professionals in key leadership positions are often very poor learners simply because they haven't had the opportunity to learn from failure. When they do fail or underperform, they end up using defensive reasoning—blaming anyone or anything they can.

**THE SOLUTION**

People can be taught to reason productively. The key is to not only identify errors and apply remedies but to also reflect on your assumptions and test the validity of your hypotheses. Managers and employees must practice looking inward, reflecting critically on their own behavior, identifying how they may have contributed to a problem, and then changing the way they act.

"I realize that you may believe you cannot confront me," the manager said. "But I encourage you to challenge me. You have a responsibility to tell me where you think the leadership made mistakes, just as I have the responsibility to identify any I believe you made. And all of us must acknowledge our own mistakes. If we do not have an open dialogue, we will not learn."

The professionals took the manager up on the first half of his invitation but quietly ignored the second. When asked to pinpoint the key problems in the experience with the client, they looked entirely outside themselves. The clients were uncooperative and arrogant. "They didn't think we could help them." The team's own managers were unavailable and poorly prepared. "At times, our managers were not up to speed before they walked into the client meetings." In effect, the professionals asserted that they were helpless to act differently—not because of any limitations of their own but because of the limitations of others.

The manager listened carefully to the team members and tried to respond to their criticisms. He talked about the mistakes that he had made during the consulting process. For example, one professional objected to the way the manager had run the project meetings. "I see that the way I asked questions closed down discussions," responded the manager. "I didn't mean to do that, but I can see how you might have believed that I had already made up my mind." Another team member complained that the manager had caved in to pressure from his superior to produce the project report far too quickly, considering the team's heavy work load. "I think that it was my responsibility to have said no," admitted the manager. "It was clear that we all had an immense amount of work."

Finally, after some three hours of discussion about his own behavior, the manager began to ask the team members if there were any errors *they* might have made. "After all," he said, "this client was not different from many others. How can we be more effective in the future?"

The professionals repeated that it was really the clients' and their own managers' fault. As one put it, "They have to be open to change and want to learn." The more the manager tried to get the team to examine its own responsibility for the outcome, the more the professionals bypassed his concerns. The best one team member could suggest was for the case team to "promise less"—implying that there was really no way for the group to improve its performance.

The case team members were reacting defensively to protect themselves, even though their manager was not acting in ways that an outsider would consider threatening. Even if there were some truth to their charges—the clients may well have been arrogant and closed, their own managers distant—the way they presented these claims was guaranteed to stop learning. With few exceptions, the professionals made attributions about the behavior of the clients and the managers but never publicly tested their claims. For instance, they said that the clients weren't motivated to learn but never really presented any evidence supporting that assertion. When their lack of concrete evidence was pointed out to them, they simply repeated their criticisms more vehemently.

If the professionals had felt so strongly about these issues, why had they never mentioned them during the project? According to the professionals, even this was the fault of others. "We didn't want to alienate the client," argued one. "We didn't want to be seen as whining," said another.

The professionals were using their criticisms of others to protect themselves from the potential embarrassment of having to admit that perhaps they too had contributed to the team's less-than-perfect performance. What's more, the fact that they kept repeating their defensive actions in the face of the manager's efforts to turn the group's attention to its own role shows that this defensiveness had become a reflexive routine. From the professionals' perspective, they weren't resisting; they were focusing on the "real" causes. Indeed, they were to be respected, if not congratulated, for working as well as they did under such difficult conditions.

The end result was an unproductive parallel conversation. Both the manager and the professionals were candid; they expressed their views forcefully. But they talked past each other, never finding a common language to describe what had happened with the client. The professionals kept insisting that the fault lay with others. The manager kept trying, unsuccessfully, to get the professionals to see how they contributed to the state of affairs they were criticizing. The dialogue of this parallel conversation looks like this:

**PROFESSIONALS:** *"The clients have to be open. They must want to change."*

**It's not enough to talk candidly. Professionals can still find themselves talking past each other.**

**MANAGER:** *"It's our task to help them see that change is in their interest."*

**PROFESSIONALS:** *"But the clients didn't agree with our analyses."*

**MANAGER:** *"If they didn't think our ideas were right, how might we have convinced them?"*

**PROFESSIONALS:** *"Maybe we need to have more meetings with the client."*

**MANAGER:** *"If we aren't adequately prepared and if the clients don't think we're credible, how will more meetings help?"*

**PROFESSIONALS:** *"There should be better communication between case team members and management."*

**MANAGER:** *"I agree. But professionals should take the initiative to educate the manager about the problems they are experiencing."*

**PROFESSIONALS:** *"Our leaders are unavailable and distant."*

**MANAGER:** *"How do you expect us to know that if you don't tell us?"*

Conversations such as this one dramatically illustrate the learning dilemma. The problem with the professionals' claims is not that they are wrong but that they aren't useful. By constantly turning the focus away from their own behavior to that of others, the professionals bring learning to a grinding halt. The manager understands the trap but does not know how to get out of it. To learn how to do that requires going deeper into the dynamics of defensive reasoning—and into the special causes that make professionals so prone to it.

## Defensive Reasoning and the Doom Loop

What explains the professionals' defensiveness? Not their attitudes about change or commitment to continuous improvement; they really wanted to work more effectively. Rather, the key factor is the way they reasoned about their behavior and that of others.

It is impossible to reason anew in every situation. If we had to think through all the possible responses every time someone asked, "How are you?" the world would pass us by. Therefore, everyone develops a theory of action—a set of rules that individuals use to design and implement their own behavior as well as to understand the behavior of others. Usually, these theories of actions become so taken for granted that people don't even realize they are using them.

One of the paradoxes of human behavior, however, is that the master program people actually use is rarely the one they think they use. Ask people in an interview or questionnaire to articulate the rules they use to govern their actions, and they will give you what I call their "espoused" theory of action. But observe these same people's behavior, and you will quickly see that this espoused theory has very little to do with how they actually behave. For example, the professionals on the case team said they believed in continuous improvement, and yet they consistently acted in ways that made improvement impossible.

When you observe people's behavior and try to come up with rules that would make sense of it, you discover a very different theory of action—what I call the individual's "theory-in-use." Put simply, people consistently act inconsistently, unaware of the contradiction between their espoused theory and their theory-in-use, between the way they think they are acting and the way they really act.

What's more, most theories-in-use rest on the same set of governing values. There seems to be a universal human tendency to design one's actions consistently according to four basic values:

1. To remain in unilateral control;
2. To maximize "winning" and minimize "losing";
3. To suppress negative feelings; and
4. To be as "rational" as possible—

by which people mean defining clear objectives and evaluating their behavior in terms of whether or not they have achieved them.

The purpose of all these values is to avoid embarrassment or threat, feeling vulnerable or incompetent. In this respect, the master program that most people use is profoundly defensive. Defensive reasoning encourages individuals to keep private the premises, inferences, and conclusions that shape their behavior and to avoid testing them in a truly independent, objective fashion.

Because the attributions that go into defensive reasoning are never really tested, it is a closed loop, remarkably impervious to conflicting points of view. The inevitable response to the observation that somebody is reasoning defensively is yet more defensive reasoning. With the case team, for example, whenever anyone pointed out the professionals' defensive behavior to them, their initial reaction was to look for the cause in somebody else—clients who were so sensitive that they would have been alienated if the consultants had criticized them or a manager so

weak that he couldn't have taken it had the consultants raised their concerns with him. In other words, the case team members once again denied their own responsibility by externalizing the problem and putting it on someone else.

In such situations, the simple act of encouraging more open inquiry is often attacked by others as "intimidating." Those who do the attacking deal with their feelings about possibly being wrong by blaming the more open individual for arousing these feelings and upsetting them.

Needless to say, such a master program inevitably short-circuits learning. And for a number of reasons unique to their psychology, well-educated professionals are especially susceptible to this.

Nearly all the consultants I have studied have stellar academic records. Ironically, their very success at education helps explain the problems they have with learning. Before they enter the world of work, their lives are primarily full of successes, so they have rarely experienced the embarrassment and sense of threat that comes with failure. As a result, their defensive reasoning has rarely been activated. People who rarely experience failure, however, end up not knowing how to deal with it effectively. And this serves to reinforce the normal human tendency to reason defensively.

In a survey of several hundred young consultants at the organizations I have been studying, these professionals describe themselves as driven internally by an unrealistically high ideal of performance: "Pressure on the job is self-imposed." "I must not only do a good job; I must also be the best." "People around here are very bright and hard-working; they are highly motivated to do an outstanding job." "Most of us want not only to succeed but also to do so at maximum speed."

These consultants are always comparing themselves with the best around them and constantly trying to better their own performance. And yet they do not appreciate being required to compete openly with each other. They feel it is somehow inhumane. They prefer to be the individual contributor—what might be termed a "productive loner."

Behind this high aspiration success is an equally high fear of failure and a propensity to feel shame and guilt when they do fail to meet their high standards. "You must avoid mistakes," said one. "I hate making them. Many of us fear failure, whether we admit it or not."

To the extent that these consultants have experienced success in their lives, they have not had to be concerned about failure and the attendant feelings of shame and guilt. But to exactly the same extent, they also have never developed the tolerance for feelings of failure or the skills to deal with these feelings. This in turn has led them not only to fear failure but also to fear the fear of failure itself. For they know that they will not cope with it superlatively—their usual level of aspiration.

The consultants use two intriguing metaphors to describe this phenomenon. They talk about the "doom loop" and "doom zoom." Often, consultants will perform well on the case team, but because they don't do the jobs perfectly or receive accolades from their managers, they go into a doom loop of despair. And they don't ease into the doom loop, they zoom into it.

As a result, many professionals have extremely "brittle" personalities. When suddenly faced with a situation they cannot immediately handle, they tend to fall apart. They cover up their distress in front of the client. They talk about it constantly with their fellow case team members. Interestingly, these conversations commonly take the form of bad-mouthing clients.

Such brittleness leads to an inappropriately high sense of despondency or even despair when people don't achieve the high levels of performance they aspire to. Such despondency is rarely psychologically devastating, but when combined with defensive reasoning, it can result in a formidable predisposition against learning.

There is no better example of how this brittleness can disrupt an organization than performance evaluations. Because it represents the one moment when a professional must measure his or her own behavior against some formal standard, a performance evaluation is almost tailor-made to push a professional into the doom loop. Indeed, a poor evaluation can reverberate far beyond the particular individual involved to spark defensive reasoning throughout an entire organization.

At one consulting company, management established a new performance-evaluation process that was designed to make evaluations both more objective and more useful to those being evaluated. The consultants participated in the design of the new system and in general were enthusiastic because it corresponded to their espoused values of objectivity and fairness. A brief two years into the new process, however, it had

**When professionals don't do their jobs perfectly, they zoom into a "doom loop."**

become the object of dissatisfaction. The catalyst for this about-face was the first unsatisfactory rating.

Senior managers had identified six consultants whose performance they considered below standard. In keeping with the new evaluation process, they did all they could to communicate their concerns to the six and to help them improve. Managers met with each individual separately for as long and as often as the professional requested to explain the reasons behind the rating and to discuss what needed to be done to improve—but to no avail. Performance continued at the same low level and, eventually, the six were let go.

When word of the dismissal spread through the company, people responded with confusion and anxiety. After about a dozen consultants angrily complained to management, the CEO held two lengthy meetings where employees could air their concerns.

At the meetings, the professionals made a variety of claims. Some said the performance-evaluation process was unfair because judgments were subjective and biased and the criteria for minimum performance unclear. Others suspected that the real cause for the dismissals was economic and that the performance-evaluation procedure was just a fig leaf to hide the fact that the company was in trouble. Still others argued that the evaluation process was antilearning. If the company were truly a learning organization, as it claimed, then people performing below the minimum standard should be taught how to reach it. As one professional put it: "We were told that the company did not have an up-or-out policy. Up-or-out is inconsistent with learning. You misled us."

The CEO tried to explain the logic behind management's decision by grounding it in the facts of the case and by asking the professionals for any evidence that might contradict these facts.

Is there subjectivity and bias in the evaluation process? Yes, responded the CEO, but "we strive hard to reduce them. We are constantly trying to improve the process. If you have any ideas, please tell us. If you know of someone treated unfairly, please bring it up. If any of you feel that you have been treated unfairly, let's discuss it now or, if you wish, privately."

Is the level of minimum competence too vague? "We are working to define minimum competence more clearly," he answered. "In the case of the six, however, their performance was so poor that it wasn't difficult to reach a decision." Most of the six had received timely feedback about their problems. And in the two cases where people had not, the reason was that they had never taken the responsibility to seek out evaluations—and, indeed, had actively avoided them. "If you have any data to the contrary," the CEO added, "let's talk about it."

Were the six asked to leave for economic reasons? No, said the CEO. "We have more work than we can do, and letting professionals go is extremely costly for us. Do any of you have any information to the contrary?"

As to the company being antilearning, in fact, the entire evaluation process was designed to encourage learning. When a professional is performing below the minimum level, the CEO explained, "we jointly design remedial experiences with the individual. Then we look for signs of improvement. In these cases, either the professionals were reluctant to take on such assignments or they repeatedly failed when they did. Again, if you have information or evidence to the contrary, I'd like to hear about it."

The CEO concluded: "It's regrettable, but sometimes we make mistakes and hire the wrong people. If individuals don't produce and repeatedly prove themselves unable to improve, we don't know what else to do except dismiss them. It's just not fair to keep poorly performing individuals in the company. They earn an unfair share of the financial rewards."

Instead of responding with data of their own, the professionals simply repeated their accusations but in ways that consistently contradicted their claims. They said that a genuinely fair evaluation process would contain clear and documentable data about performance—but they were unable to provide firsthand examples of the unfairness that they implied colored the evaluation of the six dismissed employees. They argued that people shouldn't be judged by inferences unconnected to their actual performance—but they judged management in precisely this way. They insisted that management define clear, objective, and unambiguous performance standards—but they argued that any humane system would take into account that the performance of a professional cannot be precisely measured. Finally, they presented themselves as champions of learning—but they never proposed any criteria for assessing whether an individual might be unable to learn.

In short, the professionals seemed to hold management to a different level of performance than they held themselves.

In their conversation at the meetings, they used many of the features of ineffective evaluation that they condemned—the absence of concrete data, for example, and the dependence on a circular logic of "heads we win, tails you lose." It is as if they were saying, "Here are the features of a fair performance-evaluation system. You should abide by them. But we don't have to when we are evaluating you."

Indeed, if we were to explain the professionals' behavior by articulating rules that would have to be in their heads in order for them to act the way they did, the rules would look something like this:

1. When criticizing the company, state your criticism in ways that you believe are valid—but also in ways that prevent others from deciding for themselves whether your claim to validity is correct.

2. When asked to illustrate your criticisms, don't include any data that others could use to decide for themselves whether the illustrations are valid.

3. State your conclusions in ways that disguise their logical implications. If others point out those implications to you, deny them.

Of course, when such rules were described to the professionals, they found them abhorrent. It was inconceivable that these rules might explain their actions. And yet in defending themselves against this observation, they almost always inadvertently confirmed the rules.

## Learning How to Reason Productively

If defensive reasoning is as widespread as I believe, then focusing on an individual's attitudes or commitment is never enough to produce real change. And as the previous example illustrates, neither is creating new organizational structures or systems. The problem is that even when people are genuinely committed to improving their performance and management has changed its structures in order to encourage the "right" kind of behavior, people still remain locked in defensive reasoning. Either they remain unaware of this fact, or if they do become aware of it, they blame others.

There is, however, reason to believe that organizations can break out of this vicious circle. Despite the strength of defensive reasoning, people genuinely strive to produce what they intend. They value acting competently. Their self-esteem is intimately tied up with behaving consistently and performing effectively. Companies can use these universal human tendencies to teach people how to reason in a new way—in effect, to change the master programs in their heads and thus reshape their behavior.

People can be taught how to recognize the reasoning they use when they design and implement their actions. They can begin to identify the inconsistencies between their espoused and actual theories of action. They can face up to the fact that they unconsciously design and implement actions that they do not intend. Finally, people can learn how to identify what individuals and groups do to create organizational defenses and how these defenses contribute to an organization's problems.

Once companies embark on this learning process, they will discover that the kind of reasoning necessary to reduce and overcome organizational defenses is the same kind of "tough reasoning" that underlies the effective use of ideas in strategy, finance, marketing, manufacturing, and other management disciplines. Any sophisticated strategic analysis, for example, depends on collecting valid data, analyzing it carefully, and constantly testing the inferences drawn from the data. The toughest tests are reserved for the conclusions. Good strategists make sure that their conclusions can withstand all kinds of critical questioning.

So too with productive reasoning about human behavior. The standard of analysis is just as high. Human resource programs no longer need to be based on "soft" reasoning but should be as analytical and as data-driven as any other management discipline.

Of course, that is not the kind of reasoning the consultants used when they encountered problems that were embarrassing or threatening. The data they collected was hardly objective. The inferences they made rarely became explicit. The conclusions they reached were largely self-serving, impossible for others to test, and as a result, "self-sealing," impervious to change.

How can an organization begin to turn this situation around, to teach its members how to reason productively? The first step is for managers at the top to examine critically and change their own theories-in-use. Until senior managers become aware of how they reason defensively and the counterproductive consequences that result, there will be little real progress. Any change activity is likely to be just a fad.

Change has to start at the top because otherwise defensive senior managers are likely to disown any transformation in reasoning patterns coming from below.

**Until senior managers become aware of the ways they reason defensively, any change activity is likely to be just a fad.**

If professionals or middle managers begin to change the way they reason and act, such changes are likely to appear strange—if not actually dangerous—to those at the top. The result is an unstable situation where senior managers still believe that it is a sign of caring and sensitivity to bypass and cover up difficult issues, while their subordinates see the very same actions as defensive.

The key to any educational experience designed to teach senior managers how to reason productively is to connect the program to real business problems. The best demonstration of the usefulness of productive reasoning is for busy managers to see how it can make a direct difference in their own performance and in that of the organization. This will not happen overnight. Managers need plenty of opportunity to practice the new skills. But once they grasp the powerful impact that productive reasoning can have on actual performance, they will have a strong incentive to reason productively not just in a training session but in all their work relationships.

One simple approach I have used to get this process started is to have participants produce a kind of rudimentary case study. The subject is a real business problem that the manager either wants to deal with or has tried unsuccessfully to address in the past. Writing the actual case usually takes less than an hour. But then the case becomes the focal point of an extended analysis.

For example, a CEO at a large organizational-development consulting company was preoccupied with the problems caused by the intense competition among the various business functions represented by his four direct reports. Not only was he tired of having the problems dumped in his lap, but he was also worried about the impact the interfunctional conflicts were having on the organization's flexibility. He had even calculated that the money being spent to iron out disagreements amounted to hundreds of thousands of dollars every year. And the more fights there were, the more defensive people became, which only increased the costs to the organization.

In a paragraph or so, the CEO described a meeting he intended to have with his direct reports to address the problem. Next, he divided the paper in half, and on the right-hand side of the page, he wrote a scenario for the meeting—much like the script for a movie or play—describing what he would say and how his subordinates would likely respond. On the left-hand side of the page, he wrote down any thoughts and feelings that he would be likely to have during the meeting but that he wouldn't express for fear they would derail the discussion.

But instead of holding the meeting, the CEO analyzed this scenario *with* his direct reports. The case became the catalyst for a discussion in which the CEO learned several things about the way he acted with his management team.

He discovered that his four direct reports often perceived his conversations as counterproductive. In the guise of being "diplomatic," he would pretend that a consensus about the problem existed, when in fact none existed. The unintended result: instead of feeling reassured, his subordinates felt wary and tried to figure out "what is he *really* getting at."

The CEO also realized that the way he dealt with the competitiveness among department heads was completely contradictory. On the one hand, he kept urging them to "think of the organization as a whole." On the other, he kept calling for actions—department budget cuts, for example—that placed them directly in competition with each other.

Finally, the CEO discovered that any of the tacit evaluations and attributions he had listed turned out to be wrong. Since he had never expressed these assumptions, he had never found out just how wrong they were. What's more, he learned that much of what he thought he was hiding came through to his subordinates anyway—but with the added message that the boss was covering up.

The CEO's colleagues also learned about their own ineffective behavior. They learned by examining their own behavior as they tried to help the CEO analyze his case. They also learned by writing and analyzing cases of their own. They began to see that they too tended to bypass and cover up the real issues and that the CEO was often aware of it but did not say so. They too made inaccurate attributions and evaluations that they did not express. Moreover, the belief that they had to hide important ideas and feelings from the CEO and from each other in order not to upset anyone turned out to be mistaken. In the context of the case discussions, the entire senior management team was quite willing to discuss what had always been undiscussable.

In effect, the case study exercise legitimizes talking about issues that people have never been able to address before. Such a discussion can be emotional—even painful. But for managers with the

courage to persist, the payoff is great: management teams and entire organizations work more openly and more effectively and have greater options for behaving flexibly and adapting to particular situations.

When senior managers are trained in new reasoning skills, they can have a big impact on the performance of the entire organization—even when other employees are still reasoning defensively. The CEO who led the meetings on the performance-evaluation procedure was able to defuse dissatisfaction because he didn't respond to professionals' criticisms in kind but instead gave a clear presentation of relevant data. Indeed, most participants took the CEO's behavior to be a sign that the company really acted on the values of participation and employee involvement that it espoused.

Of course, the ideal is for all the members of an organization to learn how to reason productively. This has happened at the company where the case team meeting took place. Consultants and their managers are now able to confront some of the most difficult issues of the consultant-client relationship. To get a sense of the difference productive reasoning can make, imagine how the original conversation between the manager and case team might have gone had everyone engaged in effective reasoning. (The following dialogue is based on actual sessions I have attended with other case teams at the same company since the training has been completed.)

First, the consultants would have demonstrated their commitment to continuous improvement by being willing to examine their own role in the difficulties that arose during the consulting project. No doubt they would have identified their managers and the clients as part of the problem, but they would have gone on to admit that they had contributed to it as well. More important, they would have agreed with the manager that as they explored the various roles of clients, managers, and professionals, they would make sure to test any evaluations or attributions they might make against the data. Each individual would have encouraged the others to question his or her reasoning. Indeed, they would have insisted on it. And in turn, everyone would have understood that act of questioning not as a sign of mistrust or an invasion of privacy but as a valuable opportunity for learning.

The conversation about the manager's unwillingness to say no might look something like this:

**PROFESSIONAL #1:** *"One of the biggest problems I had with the way you managed this case was that you seemed to be unable to say no when either the client or your superior made unfair demands." [Gives an example.]*

**PROFESSIONAL #2:** *"I have another example to add. [Describes a second example.] But I'd also like to say that we never really told you how we felt about this. Behind your back we were bad-mouthing you—you know, 'he's being such a wimp'—but we never came right out and said it."*

**MANAGER:** *"It certainly would have been helpful if you had said something. Was there anything I said or did that gave you the idea that you had better not raise this with me?"*

**PROFESSIONAL #3:** *"Not really. I think we didn't want to sound like we were whining."*

**MANAGER:** *"Well, I certainly don't think you sound like you're whining. But two thoughts come to mind. If I understand you correctly, you were complaining, but the complaining about me and my inability to say no was covered up. Second, if we had discussed this, I might have gotten the data I needed to be able to say no."*

Notice that when the second professional describes how the consultants had covered up their complaints, the manager doesn't criticize her. Rather, he rewards her for being open by responding in kind. He focuses on the ways that he too may have contributed to the cover-up. Reflecting undefensively about his own role in the problem then makes it possible for the professionals to talk about their fears of appearing to be whining. The manager then agrees with the professionals that they shouldn't become complainers. At the same time, he points out the counterproductive consequences of covering up their complaints.

Another unresolved issue in the case team meeting concerned the supposed arrogance of the clients. A more productive conversation about that problem might go like this:

**MANAGER:** *"You said that the clients were arrogant and uncooperative. What did they say and do?"*

**PROFESSIONAL #1:** *"One asked me if I had ever met a payroll. Another asked how long I've been out of school."*

**Learning to reason productively can be emotional—even painful. But the payoff is great.**

**PROFESSIONAL #2:** *"One even asked me how old I was!"*

**PROFESSIONAL #3:** *"That's nothing. The worst is when they say that all we do is interview people, write a report based on what they tell us, and then collect our fees."*

**MANAGER:** *"The fact that we tend to be so young is a real problem for many of our clients. They get very defensive about it. But I'd like to explore whether there is a way for them to freely express their views without our getting defensive...*

*"What troubled me about your original responses was that you assumed you were right in calling the clients stupid. One thing I've noticed about consultants—in this company and others—is that we tend to defend ourselves by bad-mouthing the client."*

**PROFESSIONAL #1:** *"Right. After all, if they are genuinely stupid, then it's obviously not our fault that they aren't getting it!"*

**PROFESSIONAL #2:** *"Of course, that stance is antilearning and overprotective. By assuming that they can't learn, we absolve ourselves from having to."*

**PROFESSIONAL #3:** *"And the more we all go along with the bad-mouthing, the more we reinforce each other's defensiveness."*

**MANAGER:** *"So what's the alternative? How can we encourage our clients to express their defensiveness and at the same time constructively build on it?"*

**PROFESSIONAL #1:** *"We all know that the real issue isn't our age; it's whether or not we are able to add value to the client's organization. They should judge us by what we produce. And if we aren't adding value, they should get rid of us—no matter how young or old we happen to be."*

**MANAGER:** *"Perhaps that is exactly what we should tell them."*

In both these examples, the consultants and their manager are doing real work. They are learning about their own group dynamics and addressing some generic problems in client-consultant relationships. The insights they gain will allow them to act more effectively in the future—both as individuals and as a team. They are not just solving problems but developing a far deeper and more textured understanding of their role as members of the organization. They are laying the groundwork for continuous improvement that is truly continuous. They are learning how to learn.

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# Quick Takes

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## 1. Four Ways to Create a Learning Culture on Your Team

→ by TOMAS CHAMORRO-PREMUZIC and JOSH BERSIN

TECHNOLOGY IS DISRUPTING every industry and area of life, and work is no exception. One of the main career implications of the digital revolution is a shift in demand for human expertise. For instance, LinkedIn's talent research shows that half of today's most in-demand skills weren't even on the list three years ago.

As a result, there is now a premium on intellectual curiosity and learnability, the desire and ability to quickly grow and adapt one's skill set to remain employable. What you know is less relevant than what you may learn, and knowing the answers to questions is less critical than asking the right questions in the first place. Not surprisingly, employers such as Google, American Express, and Bridgewater Associates make learning an integral part of their talent management systems. As a Bersin report pointed out: "The single biggest driver of business impact is the strength of an organization's learning culture."

However, true learning cultures, defined by CEB as "a culture that supports an open mindset, an independent quest for knowledge, and shared learning directed toward the mission and goals of the organization," are still the exception rather than the norm. Recent research found that only 10% of organizations have managed to create one, with just 20% of employees demonstrating effective learning behaviors at work. Research by Bersin examined the issue of learning culture in great detail and found that companies that effectively nurture their workforce's desire to learn are at least 30% more likely to be market leaders in their industries over an extended period of time.

Here are four science-based recommendations to help you create a learning culture on your team or in your organization.

**Reward continuous learning.** It's impossible to trigger deliberate changes in your team's or organization's culture unless you actually put in place formal reward systems to entice them—and even then there is no guarantee you will achieve change unless the rewards are effective. Sadly, even when managers understand the importance of learning—at least in theory—they are often more interested in boosting short-term results and performance, which can be an enemy of learning. By definition, performance is highest when we are not learning. Equally, it is hard for employees to find the necessary time and space to learn when they are asked to maximize results, efficiency, and productivity. A report by Bersin found that among the more than 700 organizations studied, the average employee had only

**Create a climate where challenging authority and speaking up are encouraged, even if it means creating discord.**

24 minutes a week for formal learning. Note that rewarding curiosity is not just about praising and promoting those who display an effort to learn and develop; it's also about creating a climate that nurtures critical thinking, where challenging authority and speaking up are encouraged, even if it means creating discord. This is particularly important if you want your team to produce something innovative.

**Give meaningful and constructive feedback.** Today many organizations focus their developmental interventions on strengths, and feel-good approaches to management have substituted flaws and weaknesses with the popular euphemism of "opportunities," so it's easy to forget the value of negative feedback. However, it's hard to improve on anything when you are unaware of your limitations, fully satisfied with your potential, or unjustifiably pleased with yourself. Although one of the best ways to improve employees' performance is to tell them what they are doing wrong, managers often avoid difficult conversations, so they end up providing more positive than negative feedback. This is particularly problematic when it comes to curiosity and learning, since the best way to trigger curiosity is to highlight a knowledge gap—that is, making people aware of what they don't know, especially if that makes them feel uncomfortable. Note that people are generally unaware of their ignorance and limitations, especially when they are not very competent, so guidance and feedback from others is critical to helping them improve. However, negative feedback must be provided in a constructive and delicate way—it is a true art—as people are generally less receptive of it than of praise and appreciation, especially in individualistic (aka narcissistic) cultures.

**Lead by example.** Another critical driver of employee learning is what you, as a manager or leader, actually do. As illustrated by the leadership value chain model, leaders' behaviors—particularly what they routinely do—have a strong influence on their teams' behavior and performance. And the more senior that leaders are, the more impactful their behaviors will be on the rest of the organization. Accordingly, if you want to nurture your team's curiosity or unlock learning in your organization, you should practice what you preach. Start by displaying some learning and unlocking your own curiosity. It is a sort of Kantian imperative: Don't ask your employees to do what you don't do yourself. If you want people to read more, then read—and make others aware of your voracious reading habits. If you want them to take on novel, challenging tasks, then take on similar tasks yourself. For example, learn a new skill, volunteer to work on something unrelated to your main job, or take on a task outside your comfort zone even if you are not good at it—you will show that with a bit of curiosity and discipline, you can get better, and this should inspire others. And if you want people to question the status quo and be critical and nonconformist, then don't be a sucker for order and rules!

**Hire curious people.** Too often with big management problems, we focus on training and development while undermining the importance of proper selection. But the reality is that it's easier to prevent and predict than to fix and change. When selection works, there's far less need for training and development, and good selection makes training and development much more effective because it's easier to augment potential than to go against someone's nature. Learning and curiosity are no exception: If you hire people who are naturally curious, and maximize the fit between their interests and the role they are in, you will not have to worry so much about their willingness to learn or be on their case to unlock their curiosity. Fortunately, meta-analytic studies provide a detailed catalog of traits—and their corresponding measures—that increase an individual's propensity to learn and develop intellectually, even after adulthood. And there is a well-established science to predicting people's probability of displaying such traits (for example, personality assessments measuring openness to new experience, tolerance for ambiguity, critical thinking, and inquisitiveness). Likewise, decades of research into vocational interests show that aligning people's drive and interests to the characteristics of the job and culture of the organization tends to increase not just their motivation to learn but also their performance.

In sum, if you want to nurture curiosity and learning in your employees, you don't need to rely on your organization's formal learning and development programs. Reinforcing positive learning behaviors, giving construc-

tive and critical feedback to align employees' efforts with the right learning goals, showcasing your own curiosity, and hiring people with high learnability and a hungry mind are all likely to create a stronger learning culture within your team and your organization.

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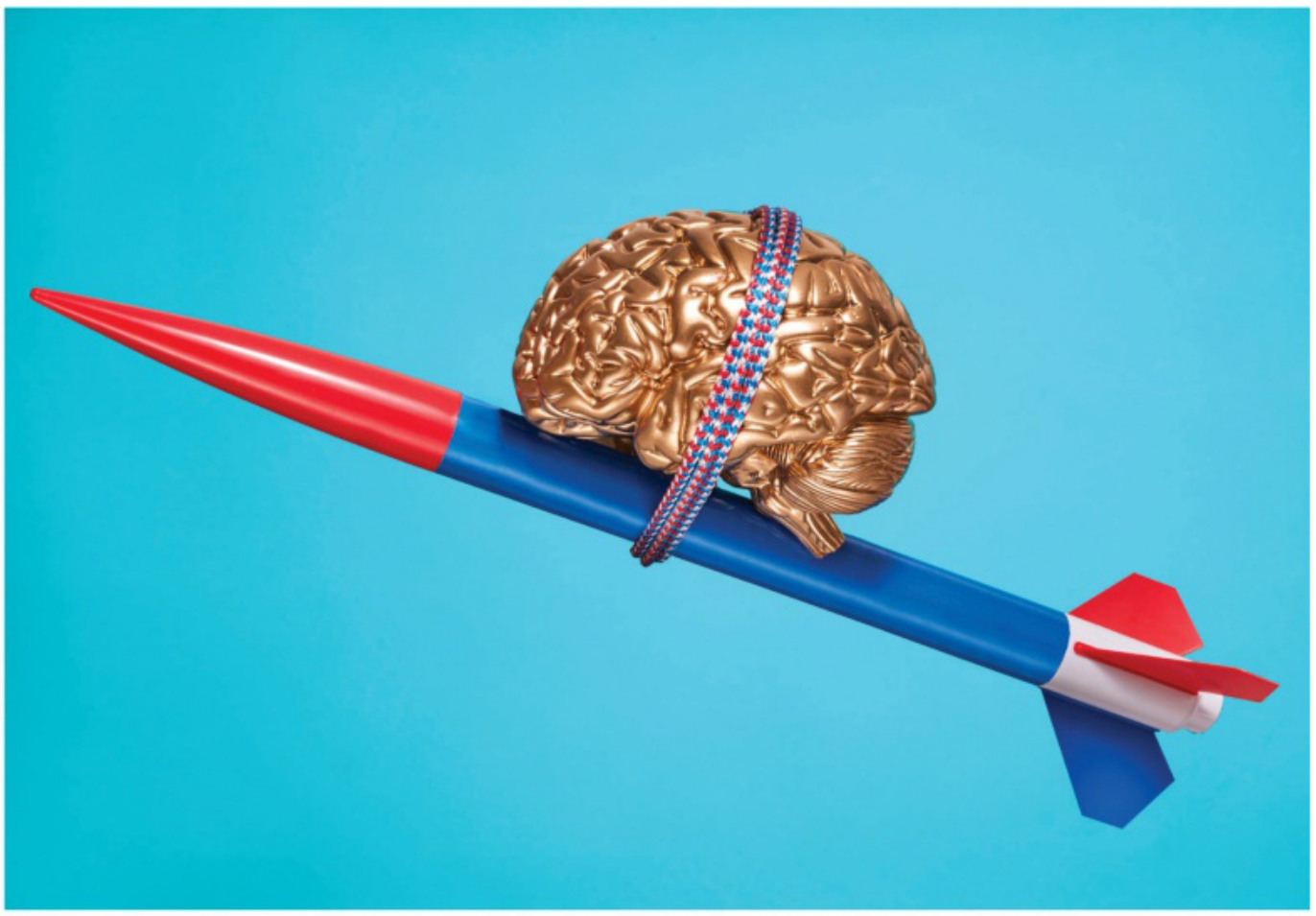

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# 2. Make Sure Everyone on Your Team Sees Learning as Part of Their Job

→ by KRISTI HEDGES

AS AN EXECUTIVE coach, I speak regularly at corporate leadership development programs. During discussions, participants often confess the real reason they're in the room, and it's rarely "to grow and learn." Time and again, the reasons include: They are checking a box on their development plan, their manager told them to come, or they've been told that their participation will increase the chance of a promotion.

The reality is that most people are not set up to take advantage of development opportunities. Many organizations view learning as something extra, something to fit in on top of the regular work. But to create a culture that encourages employee growth, managers need to make learning an expectation—not an option.

Learning helps people keep a broad perspective. When we feel we are an expert at something, sociologists have shown, the earned dogmatism effect sets in, causing us to be more closed-minded and to disregard new ideas and perspectives. For managers,

**Managers should frame learning as a growth opportunity, not as a quid pro quo for promotion.**

suggesting that team members go to a training or take an online course isn't enough; for many professionals, that's just more work on their plates. Instead, managers need to encourage continual learning with supportive behaviors that, in turn, will shape their company culture.

**Be a vocal role model.** Managers should frame learning as a growth opportunity, not as a quid pro quo for promotion.

A good starting point is to open up about your personal areas for improvement. Then it becomes more acceptable for everyone else to do the same. Ask yourself: What skills are you most excited to develop? What areas do you need to grow in? What insights have you found helpful in accomplishing these goals? Then share your answers with the rest of your team.

You should come back from every workshop or training with a story about what you learned. Rather than the typical "It was interesting," be specific. For example, you might say, "I thought I was a good listener, but I can see that this is a growth area for me. The workshop showed me new ways to interact with others, and though they aren't necessarily comfortable for me, I'm eager to try them out."

If you talk about learning as being enjoyable, you set a playful tone that encourages people to be adaptively authentic—and open to trying new behaviors.

**Celebrate growth and lean into failure.** Carol Dweck and her colleagues at Stanford University recently published research showing that people don't simply *have* passions; they *develop* them. The best way to determine what you enjoy is to try new things, even when they are challenging or uncomfortable. If you want your team to be excited about and find purpose in their work, encourage them to be curious and experiment.

A successful learning environment celebrates growth for growth's sake. One way to develop this kind of culture is to recognize employees when they make progress on a new initiative—even if it doesn't hit the goal—because they have proactively created a learning opportunity for themselves and the company at large. In addition, promote team members for their professional development, even if it means you lose them to another division.

You can also support learning by not hiding failures. One technology company I advise began instituting mandatory postmortems for all its product releases and major programs, no matter the results. Team members were able to both celebrate successes and illuminate failures as a matter of regular business, creating an environment that encouraged transparency and continuous learning. People felt free to discuss issues without blame, and interdepartmental communication improved.

**Make it easy for people.** Employees usually take on development opportunities on top of their regular workload, so the easier you can make it for them to find the right program, the better. A Google search for "management training" will undoubtedly lead you down a rabbit hole for hours. Instead, try asking HR for recommendations. If that doesn't give you the results you're looking for, crowdsource what you need. Ask colleagues inside and outside your office what they've recommended to their teams. You might end up with a repository of vetted ideas.

When someone is attending a program, lighten his or her workload to reduce stress and allow the person to be present. I've heard many employees complain that their boss recommended them for a development program only to email them constantly throughout the session, forcing them to step out to address work issues.

And make it easy for participants to apply the learning. In an attempt to show value, managers often require team members to present their takeaways or train others after completing a program. But doing so just creates more work for the participants. It's more valuable to let people apply what they've learned to their own projects first. This gives them the opportunity to determine what lessons are relevant before sharing them with the rest of the team.

**Foster new experiences.** Research shows that to be inspired, we need to transcend current thought and become aware of new or better possibilities. As the adage goes, "If you keep doing what you've always done, you'll keep getting what you've always gotten."

Cross-functional projects, role rotations, and geographic relocations are just a few ways to expose people to new learning experiences. Special assignments that last at least a year will help give your team a chance to "eat their own cooking," or witness the impact of their decisions. People benefit most and feel empowered when you allow them to weigh in on what learning opportunities interest them the most.

New experiences can feel daunting, especially when people are accomplished in their current role—but that's exactly why you should foster them. Only by tackling unfamiliar challenges will people get the feedback they need to learn. Your team may not always succeed when faced with challenging situations, and that's OK. The goal is for them to learn from the task, not necessarily to knock it out of the park.

Companies are investing considerable money and time into developing talent, but without doing the up-front work to ensure that leaders are building a learning culture. Frontline managers have the largest and most immediate influence. If you're a manager who wants to grow your team, demonstrate that you're committed to growth yourself.

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# 3. How to Teach Employees Skills They Don't Know They Lack

→ by ULRIK JUUL CHRISTENSEN

AFTER SPENDING BILLIONS of dollars a year on corporate learning, U.S. companies probably assume that their employees have the knowledge and skills they need to carry out their jobs. The employees themselves probably think they're prepared, too, having gone through these exercises. But according to data from industries including academia, health care, technology, manufacturing, retail, sports, and business services, people are actually "unconsciously incompetent" in 20% to 40% of areas critical to their performance. One global technology company my team works with, for example, discovered that, on average, its sales employees didn't understand or know about 22% of its product features, even though they believed they did.

"Unconscious incompetence" can be found at every function, discipline, and level in organizations. In fact, it's often more prominent among experienced staff, which is particularly problematic because, as the go-to people in their circles, they often pass incorrect or incomplete information and skills on to others via peer-to-peer learning and training. This can lead to significant mistakes, dissatisfied customers, and even damaged corporate reputations.

But how does a company, manager, or individual employee correct a competency gap about which no one is aware? As a physician who studies brain function, biological variation, and how people learn, I have some suggestions. The first step is to get unconscious incompetence on the learning agenda.

Corporate training programs need to be redesigned to better engage learners and empower them to admit what they don't know. Too many online training modules miss the mark here because they rely on static content, which most people try to click through as quickly as possi-

ENOTMAKS/ISTOCK

**Saying "I don't know" is always better than pretending to know something.**

ble, especially if they think they already know it. These programs also assume what students understand and where they need reinforcement, offering a one-size-fits-all approach that's highly ineffective since every learner is different, with variations in knowledge, experiences, background, and the ability to take in new information.

Better learning models are instead adaptive—that is, molded to each person's needs by probing what that person knows and doesn't know, then offering tailored content as the learner performs well or struggles. When e-learning is individualized in this way, learners can still speed through material but only that which they've already mastered. And when they reach anything that challenges them, they get more support. Education technology companies and publishers are working hard to build these kinds of systems, as are industry groups, particularly in the health care arena. The American Medical Association recently announced a partnership initiative to encourage innovation and flexibility in continuing education using blended or new approaches. And our work with the *New England Journal of Medicine* (NEJM Group) to create courses that allow physicians to maintain certification and keep up-to-date in a constantly evolving field is similar.

When being tested, learners should also be pushed to rate the confidence of their answers. Consider, for example, a trainee who scores 40 out of 50 on a proficiency test. Her trainer should make sure she focuses on not just the 10 misses but also any correct answers that she can admit were lucky guesses. I've actually started to use this approach when helping my two daughters practice their spelling words. With every answer, they have to put three fingers up if they are sure, two fingers up if they're only partly sure, and a thumbs-down if they're just giving it a shot. Now, they're much more conscious about when they're guessing and more apt to review all the words on which they felt at all unsure. When corporate learning programs prompt employees to admit that they're guessing in the same way, they, too, begin to see the previously hidden gaps in their skills and knowledge.

Another strategy is to promote a culture of continuous improvement. In the aviation industry, pilots are trained in the latest aircraft and procedures using simulators, which test their skills and abilities and uncover unconscious incompetence. In addition, airlines and the Federal Aviation Administration use information from "near miss" data (incidents or errors that nearly cause an accident) to inform training. The result is "predictive safety" that relies heavily on the reporting of these mistakes. The objective is not to punish (in fact, a lack of near-miss data is seen as questionable) but to improve safety and performance.

More companies should keep formal or informal records of—and openly discuss—errors, whether in production, customer service, or other areas, because they can yield invaluable insights about employees' knowledge gaps and make everyone more aware of what they don't know. The goal is to make people more comfortable about acknowledging previous mistakes and any doubts they may have going forward about trying to do their job. Emphasize that saying "I don't know" is always better than pretending to know something.

Unconscious incompetence is a pervasive and escalating problem, especially in fast-paced industries where knowledge and skills need constant updating. Organizations can address it only with more adaptive, individualized corporate learning programs and by promoting a culture of continuous improvement. With a mindful approach that allows learners to probe their knowledge, uncover what they don't know, and admit when they are unclear, incompetence is uncovered and thus no longer unconscious: Employees know what they don't know, and their employers can do something about it.

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# Why Organizations Don't Learn

Our traditional obsessions—success, taking action, fitting in, and relying on experts—undermine continuous improvement.

→ by FRANCESCA GINO and BRADLEY STAATS

VIRTUALLY ALL LEADERS believe that to stay competitive, their enterprises must learn and improve every day. But even companies revered for their dedication to continuous learning find it difficult to always practice what they preach.

Consider Toyota: Continuous improvement is one of the pillars of its famed business philosophy. After serious problems in late 2009 led Toyota to recall more than 9 million vehicles worldwide, its leaders confessed that their quest to become the world's largest automobile producer had compromised their devotion to learning.

Why do companies struggle to become or remain "learning organizations"? Through research conducted over the past decade across a wide range of industries, we have drawn this conclusion: Biases cause people to focus too much on success, take action too quickly, try too hard to fit in, and depend too much on experts. In this article we discuss how these deeply ingrained human tendencies interfere with learning—and how they can be countered.

## Bias Toward Success

Leaders across organizations may say that learning comes from failure, but their actions show a preoccupation with success. This focus is not surprising, but it is often excessive and impedes learning by raising four challenges.

**Challenge #1: Fear of failure.** Failure can trigger a torrent of painful emotions—hurt, anger, shame, even depression. As a result, most of us try to avoid mistakes; when they do happen, we try to sweep them under the rug. This natural tendency is heightened in companies whose leaders have, often unconsciously, institutionalized a fear of failure. They structure projects so that no time or money is available for experimentation, and they award bonuses and promotions to those who deliver according to plan. But organizations don't develop new capabilities—or take appropriate risks—unless managers tolerate failure and insist that it be openly discussed.

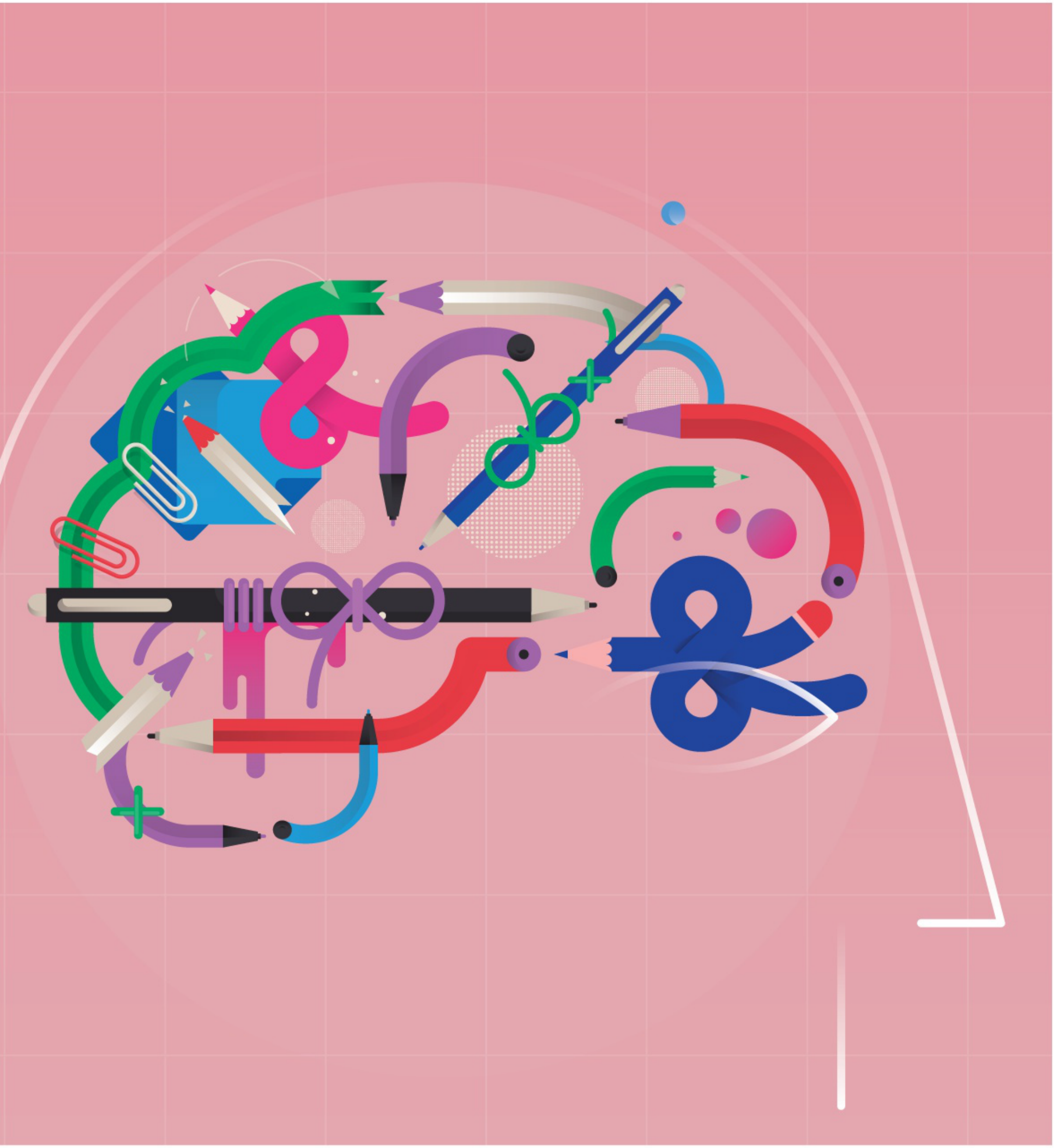
**Challenge #2: A fixed mindset.** The psychologist Carol Dweck identified two basic mindsets with which people approach their lives: "fixed" and "growth." People who have a *fixed mindset* believe that intelligence and talents are largely a matter of genetics; you either have them or you don't. They aim to appear smart at all costs and see failure as something to be avoided, fearing it will make them seem incompetent. A fixed mindset limits the ability to learn because it makes individuals focus too much on performing well.

By contrast, people who have a *growth mindset* seek challenges and learning opportunities. They believe that no matter how good you are, you can always get better through effort and practice. They don't see failure as a sign of inadequacy and are happy to take risks (see the sidebar "The Neural Implications of Different Mindsets").

**Challenge #3: Overreliance on past performance.** When making hiring and promotion decisions, leaders



Illustration by FERNANDO VOLKEN TOGNI



often put too much emphasis on performance and not enough on the potential to learn. Over time, Egon Zehnder, a global executive search firm, had developed a sophisticated means of evaluating candidates that considered not only their past achievements but also their competencies. However, it found that in numerous instances, candidates who looked equally good on paper performed differently on the job. Why?

A partner at the firm, Karena Strella, and her team believed the answer was individuals' potential for improvement. After a two-year project that drew on academic research and interviews, they identified four elements that make up potential: curiosity, insight, engagement, and determination. They developed interview questions to get at these elements, along with psychometric measures applied via questionnaires. This new model now plays a key role in the search firm's assessments of job candidates. Egon Zehnder has found that high-potential candidates perform better than their peers with less potential, thanks to their openness to acquiring new skills and their thirst for learning.

**Challenge #4: The attribution bias.** It is common for people to ascribe their successes to hard work, brilliance, and skill rather than luck; however, they blame their failures on bad fortune. This phenomenon, known as the *attribution bias,* hinders learning (see "Why Leaders Don't Learn from Success," HBR, April 2011). In fact, unless people recognize that failure resulted from their own actions, they do not learn from their mistakes. In a study we conducted with Chris Myers, we asked participants to work on two different decision-making tasks spaced one week apart. Each task had a correct solution, but only a few people were able to identify it. We found that participants who took responsibility for doing poorly on the first activity were almost three times as likely to succeed on the second one. They learned from their failure and made better decisions as a result.

Leaders can use the following methods to encourage others to find the silver lining in failures, adopt a growth mindset, focus on potential, and overcome the attribution bias.

**Destigmatize failure.** Leaders must constantly emphasize that mistakes are learning opportunities rather than cause for embarrassment or punishment, and they must act in ways that reinforce that message. Ashley Good, the founder of Fail Forward, a Toronto-based consulting firm that helps companies learn how to benefit from blunders, often begins by asking a client's employees questions such as "Do you take risks in the course of your work?" and "Is learning from failure formally supported?" The answers help leaders understand whether their company has a culture in which failure is openly discussed and accepted, and what steps they should take if not.

**Embrace and teach a growth mindset.** Leaders need to challenge their own thinking about whether people can improve. Research by Peter Heslin and colleagues found that managers with a growth mindset notice improvement in their employees, while those with a fixed mindset do not because they are stuck in their initial impressions.

When people are taught a growth mindset, they become more aware of opportunities for self-improvement, more willing to embrace challenges, and more likely to persist when they confront obstacles. So tell employees that you believe they can expand their talents if they apply themselves. Reinforce that message by educating them about the research on growth mindsets and relaying stories about high-performing employees who were dedicated to their jobs and developed skills over time. Finally, in formal and informal performance reviews, praise their efforts to learn.

**Consider potential when hiring and promoting.** Doing this—and making it clear to employees that it is being done—will help counter managers' incorrect first impressions, along with their natural inclination to hire and promote people like themselves. It will also encourage employees to try new things and seek support in developing their competencies. Considering someone's potential to improve will almost certainly surface candidates who otherwise would be overlooked for jobs and promotions. When Egon Zehnder began including potential in assessing possible contenders for managerial positions, the resulting pools of candidates were more diverse in terms of race and gender.

**Use a data-driven approach to identify what caused success or failure.** Most leaders know that data is critical to uncovering the true causes of successful performance, but they don't always insist on collecting and analyzing the necessary information. One exception is Ed Catmull, the president of Pixar and Disney Animation Studios. He is a big believer in conducting data-based postmortems of projects—including successful ones—and stresses that even creative endeavors like moviemaking involve activities and deliverables that can be measured. "Data can show things in a neutral way, which can stimulate discussion and challenge assumptions arising from personal impressions," he says (see "How Pixar Fosters Collective Creativity," HBR, September 2008).

Of course, collecting the data is one thing; accepting what the data tells us is another. We have both worked with all too many organizations where "data-driven decision making" is code for contorting the facts until they reveal whatever senior management expects to see. It's the role of leaders to ensure that they and other executives are sensitive to this tendency and don't succumb to it.

## Bias Toward Action

How do you usually respond when you are faced with a problem in your organization? If you're like most managers, you choose to take some kind of action. You work harder, put in even longer hours, and place added stress on yourself. You're more comfortable doing something, even if it is counterproductive and doing nothing is the best course of action.

Consider professional soccer goalies and their strategies for defending against penalty kicks. According to a study by Michael Bar-Eli and colleagues, those who stay in the center of the goal, rather than leaping to the right or left, perform the best: They have a 33.3% chance of stopping the ball. Nonetheless, goalies stay in the center only 6.3% of the time. Why? Because it looks and feels better to have missed the ball by diving, even if it turns out to have been in the wrong direction, than to have stood still and watched the ball sail by.

The same aversion to inaction holds true in the business world. When we surveyed participants in our executive education classes, we found that managers feel more productive executing tasks than planning them. Especially when under time pressure, they perceive planning to be wasted effort. This bias toward action is detrimental to improvement for two reasons.

**Challenge #1: Exhaustion.** Not surprisingly, exhausted workers are too tired to learn new things or apply what they already know. For example, research conducted by one of us (Brad) with Hengchen Dai, Katherine Milkman, and David Hofmann found that hand-washing compliance by hospital personnel—widely known to be critical for preventing hospital-acquired infections—fell nine percentage points, on average, over a typical 12-hour shift. The drop was even greater when healthcare workers had a particularly busy shift. However, compliance increased when the workers had more time off between shifts.

**Challenge #2: Lack of reflection.** Being "always on" doesn't give workers time to reflect on what they did well and what they did wrong.

Research that we conducted at a tech-support call center of Wipro, a global IT, consulting, and outsourcing company based in India, illustrates this. We studied employees during their initial weeks of training. All went through the same technical training, with a key difference. On the sixth through the 16th days of the program, some workers spent the last 15 minutes of each day reflecting on and writing about the lessons they had learned that day. The others, the control group, just kept working for another 15 minutes. On the final training test at the end of one month, workers who had been given time to reflect performed more than 20% better, on average, than those in the control group. Several lab studies we conducted on college students and employed individuals in a variety of organizations produced similar results.

The following antidotes to the bias for action may sound obvious, but they are infrequently applied.

**Build breaks into the schedule.** Make sure workers take sufficient time to rejuvenate and reflect during the workday and between shifts. In many organizations, hourly workers are entitled or actually required to take periodic breaks.

However, our research suggests that companies should provide even more downtime than they do. At Morning Star,

## Idea in Brief

**THE PROBLEM**
Even companies dedicated to continuous improvement struggle to stay on the path. Research suggests that's because of deeply ingrained biases: We focus too much on success, take action too quickly, try too hard to fit in, and depend too much on outside experts.

**THE IMPEDIMENTS**
These biases manifest themselves in 10 conditions that impede learning. These include fear of failure, insufficient reflection, believing that we need to conform, and inadequate frontline involvement in addressing problems.

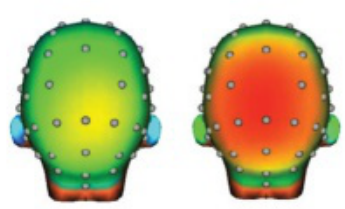
**THE SOLUTIONS**
Leaders can use a variety of strategies to counter the biases, including stressing that mistakes are learning opportunities, building more breaks into schedules, helping employees identify and apply their personal strengths, and encouraging employees to own problems that affect them.

## The Neural Implications of Different Mindsets

What happens inside our brains when we make mistakes? That depends on our ideas about learning and intelligence.

Individuals with a *growth mindset*, who believe that intelligence and talents can be enhanced through effort, regard mistakes as opportunities to learn and improve. By contrast, individuals with a *fixed mindset*, who believe that intelligence and talents are innate and unchangeable, think mistakes signal a lack of ability.

Jason S. Moser and his colleagues at Michigan State University examined the neural mechanisms underlying these differing reactions to mistakes. The picture below illustrates neural activity in people performing a task and making errors. Those with a fixed mindset display considerably less brain activity than those with a growth mindset, who actively process errors to learn from them.




Source "Mind Your Errors: Evidence for a Neural Mechanism Linking Growth Mind-Set to Adaptive Posterror Adjustments," Jason S. Moser et al., Psychological Science, October 2011

a vertically integrated tomato-processing company, the workers in the fields not only get mandated breaks, but they also sometimes have to suspend their work for periods that can last nearly an hour, as a result of glitches in other parts of the system (such as a tomato trailer's failure to show up). Company data that we examined revealed that workers were actually more productive over a 12-hour shift if their day included such unexpected breaks. The message: Leaders should conduct experiments to determine the optimal number and length of breaks.

For many management and knowledge-worker positions, of course, there are no mandatory breaks. Individuals have to decide for themselves whether to pause and recharge. Virtually everyone in such jobs recognizes the benefits of watercooler conversations for learning and exchanging ideas. People also agree that it's important to get enough sleep and take vacations. Yet many of us don't practice what we preach. A recent survey conducted by Staples drives this point home. When Staples asked more than 200 office workers in the United States and Canada about their work habits, more than a quarter reported that they took no break other than lunch. The vast majority of those cited guilt as the main reason. Yet 90% of the bosses surveyed said that they encouraged breaks, and 86% of employees agreed that brief respites from work make them more productive.

So urge employees to take breaks and vacations, and set an example. Research shows that the restorative benefits are greatest when you get out of your office or go for a walk. Don't have lunch at your desk then; head outside for a stroll instead, especially in a park. It will put you in a better mood and reinvigorate you, allowing you to accomplish and learn more.

**Take time to just think.** In the same way that you block out time on your calendar to plan an initiative or a presentation, you should block out a short period each day—even just 20 to 30 minutes—to either plan your agenda (in the early morning) or think about how the day went (in the late afternoon). If time is really scarce, try to reflect on your way to or from work. A study of commuters in the United Kingdom that we conducted with Julia Lee and Jon Jachimowicz showed that those who were encouraged (through text messages) to plan for their upcoming day during their journeys were happier, less burned-out, and more productive than people in a control group.

Leaders can help by thoughtfully structuring the workweek—for instance, by insisting that no meetings be held on Fridays, as Tommy Hilfiger and other firms have done.

**Encourage reflection after doing.** Through reflection, we can better understand the actions we're considering and their likelihood of keeping us productive. "Don't avoid thinking by being busy," a wise mentor once told one of us.

Some organizations are finding ways to incorporate reflection into their regular activities. One powerful approach treats reflection as a post hoc analytical tool for understanding the drivers of success and failure. The U.S. Army is well known for its after-action reviews (AARs). To ensure that a rigorous process is followed, AARs are run by a facilitator rather than the project's leader. An effective AAR involves comparing what actually happened with what should or could have happened and then carefully diagnosing the gap, be it positive or negative.

Whether reflecting with a group or by yourself, keep a few things in mind. First, remember that the goal is to learn. That means being honest with yourself—something an outside facilitator can help ensure in group settings. Second, try to

**When people are taught a growth mindset, they become more aware of opportunities for self-improvement.**

get a full and accurate picture of what occurred. That requires considering multiple perspectives (because we all have incomplete and often biased opinions) and using data. Third, work to get to the root of why things played out the way they did. Finally, think about how the work could be improved. Beyond the obvious fixes to the existing process, take time to imagine how you would do things completely differently if you could.

## Bias Toward Fitting In

When we join an organization, it's natural to want to fit in. But this tendency leads to two challenges to learning.

**Challenge #1: Believing we need to conform.** Early in life, we realize that there are tangible benefits to be gained from following social and organizational norms and rules. As a result, we make a significant effort to learn and adhere to written and unwritten codes of behavior at work. But here's the catch: Doing so limits what we bring to the organization. As Steve Jobs famously said, "It doesn't make sense to hire smart people and tell them what to do; we hire smart people so they can tell us what to do." In fact, being unafraid to stand out can actually garner respect, despite beliefs to the contrary. Research conducted by one of us (Francesca) with Silvia Bellezza and Anat Keinan found that nonconforming behaviors (such as dressing down at a business meeting or using one's own PowerPoint theme rather than the organization's) raise others' estimation of a person's competence and status.

**Challenge #2: Failure to use one's strengths.** When employees conform to what they think the organization wants, they are less likely to be themselves and to draw on their strengths. A Gallup survey of thousands of people across the globe shows that an affirmative answer to the question "At work, do you have an opportunity to do what you do best every day?" is a significant predictor of engagement and high operational performance. When people feel free to stand apart from the crowd, they can exercise their signature strengths (such as curiosity, love for learning, and perseverance), identify opportunities for improvement, and suggest ways to exploit them. But all too often, individuals are afraid of rocking the boat.

Leaders can use several methods to combat the bias toward fitting in.

**Encourage people to cultivate their strengths.** To motivate and support employees, some companies allow them to spend a certain portion of their time doing work of their own choosing. Although this is a worthwhile practice, firms should strive to help individuals apply their strengths every day as a normal part of their jobs.

Toward that end, managers should help individuals identify and develop their fortes—and not just by discussing them in annual performance reviews. One effective method is to give someone an "appreciation jolt" in the form of positive feedback. It's particularly potent when friends, family, mentors, and coworkers share stories about how the person excels. These stories, our research shows, trigger positive emotions, cause us to realize the impact that we have on others, and make us more likely to continue capitalizing on our signature strengths rather than just trying to fit in.

This approach helped a major global consulting company address a problem: Its employees tended to view their jobs as money-for-labor contracts and often would do the bare minimum instead of seeking to create win-win outcomes for themselves and the firm. We found that the jolts—delivered during the onboarding, or orientation, process—gave new hires a more personal, less transactional relationship with the organization and correlated with reduced burnout, less turnover a year after the intervention, and improved performance. Earlier work that we did at an Indian call center generated similar results: A focus on individuals and their strengths during the onboarding process was associated with significantly lower turnover and higher customer satisfaction.

To understand whether their organization is helping people identify and leverage their strengths, managers should ask themselves the following questions: Do I know what my employees' talents and passions are? Am I talking to them about what they do well and where they can improve? Do our goals and objectives include making maximum use of employees' strengths?

**Increase awareness and engage workers.** If people don't see an issue, you can't expect them to speak up about it. Lowe's, the home-improvement retail chain, prides itself on its commitment to worker safety, and most employees report in anonymous surveys that they feel safe on the job. Yet for Hank Jones, the company's director of safety and hazardous materials, even one safety lapse is too many. His team takes a multipronged approach to get employees to speak up about potential safety hazards in stores.

During meetings with workers throughout the organization, team members increase awareness of specific problems by asking questions such as "Do you know how many people we injured last year, and do you know where those injuries occurred?" The company has also started publishing safety outcome data in its annual social responsibility report.

In addition, Jones changed the way managers run safety meetings: Instead of reading the latest safety policies or rules, they ask questions or pose issues and give the group time to tackle them. Meetings become less about passively learning material and more about actively improving processes.

**Model good behavior.** During store walks, Lowe's executives look for opportunities to highlight the importance of safety and get to the root cause of unsafe behavior, including their own. When one senior executive stepped onto a pallet—a clear hazard—a store associate asked him to get down. The executive complied, hugged the associate, and thanked him in front of others, sending the message that the organization values employees who speak up.

## Bias Toward Experts

Beginning in the early 20th century, the scientific management movement introduced a rigorous approach to examining how organizations operate. In the process, though, it solidified the notion that experts are the best source of ideas for improvement. Today companies continue to call in consultants, industrial engineers, Six Sigma teams, and the like when improvement is needed. The bias toward experts creates two challenges.

**Challenge #1: An overly narrow view of expertise.** Organizations tend to define "expert" too narrowly, relying on indicators such as titles, degrees, and years of experience. However, experience is a multidimensional construct. Different types of experience—including time spent on the front line, with a customer or working with particular people—contribute to understanding a problem in detail and creating a solution.

A bias toward experts can also lead people to misunderstand the potential drawbacks that come with increased time and practice in the job. Though experience improves efficiency and effectiveness, it can also make people more resistant to change and more likely to dismiss information that conflicts with their views (see the sidebar "Blinded by Expertise").

**Challenge #2: Inadequate frontline involvement.** Frontline employees—the people directly involved in creating, selling, delivering, and servicing offerings and interacting with customers—are frequently in the best position to spot and solve problems. Too often, though, they aren't empowered to do so. Even in organizations that espouse "lean thinking"—a process-improvement approach that is intended to involve all employees—standard work practices seldom change, and only expert recommendations are implemented.

The following tactics can help organizations overcome the tendency to turn to experts.

**Encourage workers to own problems that affect them.** Make sure that your organization is adhering to the principle that the person who experiences a problem should fix it when and where it occurs. This prevents workers from relying too heavily on experts and helps them avoid making the same mistakes again. Tackling the problem immediately, when the relevant information is still fresh, increases the chances that it will be successfully resolved.

For example, at Morning Star's tomato-processing facilities, individuals are expected not only to meet specific targets for themselves but also to look for ways to improve their work and the overall performance of the operation. When something goes awry on a worker's watch, she is responsible for fixing it. That might involve enlisting others to help or even going out to purchase new equipment (although there are understood limits to what workers can spend without authorization). The company encourages problem-solving behavior not only through its culture but also through its compensation practices: Pay is based both on meeting goals and on improving over time.

**Give workers different kinds of experience.** In our research at a Japanese bank, we looked at how data-entry workers performed when they were doing the same task repeatedly ("specialized experience") and when they were switching between different tasks ("varied experience"). We found that over the course of a single day, a specialized approach was fastest. But over time, switching activities across days promoted learning and kept workers more engaged. Both specialization *and* variety were important to learning.

In addition, giving workers new types of experience and greater depth within each of them is valuable. One of us (Brad), along with Jonathan Clark and Robert Huckman, studied the operational performance of radiologists who read digital images (X-rays or CT scans) remotely for hospitals. Although a doctor's total experience mattered, another important predictor of performance over time was how often that individual worked with a given hospital.

As the radiologist gained experience with a particular hospital, he could respond more quickly to its requests and help it improve its processes.

Yet another factor that affects improvement is team members' familiarity with one another. In studies across settings—including software development companies, consulting firms, health care organizations, and laboratories—we've found that working repeatedly with the same people can enhance coordination, optimize the use of valuable expertise residing within a group, speed the response to new circumstances, and improve how people combine their knowledge to solve problems effectively. In light of research showing that software teams were more likely to deliver projects on budget and with higher quality when their members had prior experience working together than when they did not, Wipro began staffing its projects accordingly.

Given such findings, leaders should strive to deepen their understanding of the kinds of industry, customer, and team experiences that affect their operating environments. They should then use this information to develop employees, track their experience portfolios, and deploy them strategically. Companies may have to change their enterprise systems, analytics capabilities, and staffing models. But the investment will help them build a richer understanding of how to improve learning and performance over time.

**Empower employees to use their experience.** Organizations should aggressively seek to identify and remove barriers that prevent individuals from using their expertise. Solving the customer's problems in innovative, value-creating ways—not navigating organizational impediments—should be the challenging part of one's job. Ethan Bernstein found that employees at a leading global manufacturer were working less productively when managers were watching them (see "The Transparency Trap," HBR, October 2014). The company claimed to be in the "lean camp," but its practices suggested otherwise: For example, workers were not sharing their ideas for improving processes with others. Bernstein's innovative solution was to put curtains around a factory production line so that employees could work in privacy. The result: Productivity increased significantly. Leaders should identify ways they can truly empower employees—whether by giving them more privacy, publicly acknowledging their contributions, or providing monetary rewards.

IT MAY BE cheaper and easier in the short run to ignore failures, schedule work so that there's no time for reflection, require compliance with organizational norms, and turn to experts for quick solutions. But these short-term approaches will limit the organization's ability to learn. If leaders institute ways to counter the four biases we have identified, they will unleash the power of learning throughout their operations. Only then will their companies truly improve continuously.

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## Blinded by Expertise

To examine how experience can increase resistance to change, we looked at the ways cardiologists and investors with different levels of experience responded to bad news that required some professional judgment.

One standard cardiology procedure is placing coronary stents in constricted arteries to maintain proper blood flow. In the early 2000s a new kind of stent, with a drug-eluting coating, was released to the market. Because reimbursement rates were comparable for the new and the traditional devices, cardiologists could primarily consider the medical merits when deciding which one to use.

In reaction to evidence that the drug-eluting stents might be dangerous in certain situations, an advisory panel of the U.S. Food and Drug Administration recommended in late 2006 that they not be used in off-label applications. But doctors were not obligated to follow this advice. Our empirical analysis of data from before and after this "shock" revealed that experienced cardiologists were less likely than newer doctors to respond to the recommendation by discontinuing their overall use of drug-eluting stents.

Since the data was unclear as to whether drug-eluting or non-drug-eluting stents were better for patient outcomes, we conducted follow-up laboratory studies with people making investment decisions and receiving unequivocally negative news. We found the same results: Decision makers who had significant expertise weren't as willing to heed the negative information as their less experienced peers were. The message: If you are not careful, your experience may hinder your learning.

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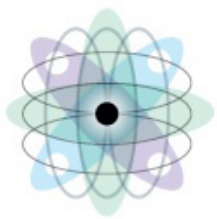

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# Is Yours a Learning Organization?

Using this assessment tool, companies can pinpoint areas where they need to foster knowledge sharing, idea development, learning from mistakes, and holistic thinking.

→ by DAVID A. GARVIN, AMY C. EDMONDSON, and FRANCESCA GINO

LEADERS MAY THINK that getting their organizations to learn is only a matter of articulating a clear vision, giving employees the right incentives, and providing lots of training. This assumption is not merely flawed—it's risky in the face of intensifying competition, advances in technology, and shifts in customer preferences.

Organizations need to learn more than ever as they confront these mounting forces. Each company must become a *learning organization*. The concept is not a new one. It flourished in the 1990s, stimulated by Peter M. Senge's *The Fifth Discipline* and countless other publications, workshops, and websites. The result was a compelling vision of an organization made up of employees skilled at creating, acquiring, and transferring knowledge. These people could help their firms cultivate tolerance, foster open discussion, and think holistically and systemically. Such learning organizations would be able to adapt to the unpredictable more quickly than their competitors could.

Unpredictability is very much still with us. However, the ideal of the learning organization has not yet been realized. Three factors have impeded progress. First, many of the early discussions about learning organizations were paeans to a better world rather than concrete prescriptions. They overemphasized the forest and paid little attention to the trees. As a result, the associated recommendations proved difficult to implement—managers could not identify the sequence of steps necessary for moving forward. Second, the concept was aimed at CEOs and senior executives rather than at managers of smaller departments and units where critical organizational work is done. Those managers had no way of assessing how their teams' learning was contributing to the organization as a whole. Third, standards and tools for assessment were lacking. Without these, companies could declare victory prematurely or claim progress without delving into the particulars or comparing themselves accurately with others.

In this article, we address these deficiencies by presenting a comprehensive, concrete survey instrument for assessing learning within an organization. Built from the ground up, our tool measures the learning that occurs in a department, office, project, or division—an organizational unit of any size that has meaningful shared or overlapping work activities. Our instrument enables your company to compare itself against benchmark scores gathered from other firms; to make assessments across areas within the organization (how, for, example, do different groups learn relative to one another?); and to look deeply within individual units. In each case, the power is in the comparisons, not in the absolute scores. You may find that an area your organization thought was a strength is actually less robust than at other organizations. In effect, the tool gives you a broader, more grounded view of how well your

*Illustration by* FERNANDO VOLKEN TOGNI

company learns and how adeptly it refines its strategies and processes. Each organization, and each unit within it, needs that breadth of perspective to accurately measure its learning against that of its peers.

## Building Blocks of the Learning Organization

Organizational research over the past two decades has revealed three broad factors that are essential for organizational learning and adaptability: a supportive learning environment, concrete learning processes and practices, and leadership behavior that provides reinforcement. We refer to these as the *building blocks of the learning organization.* Each block and its discrete subcomponents, though vital to the whole, are independent and can be measured separately. This degree of granular analysis has not been previously available.

Our tool is structured around the three building blocks and allows companies to measure their learning proficiencies in great detail. As you shall see, organizations do not perform consistently across the three blocks, nor across the various subcategories and subcomponents. That fact suggests that different mechanisms are at work in each building-block area and that improving performance in each is likely to require distinct supporting activities. Companies, and units within them, will need to address their particular strengths and weaknesses to equip themselves for long-term learning. Because all three building blocks are generic enough for managers and firms of all types to assess, our tool permits organizations and units to slice and dice the data in ways that are uniquely useful to them. They can develop profiles of their distinctive approaches to learning and then compare themselves with a benchmark group of respondents. To reveal the value of all these comparisons, let's look in depth at each of the building blocks of a learning organization.

BUILDING BLOCK 1

### A Supportive Learning Environment

An environment that supports learning has four distinguishing characteristics.

*Psychological safety.* To learn, employees cannot fear being belittled or marginalized when they disagree with peers or authority figures, ask naive questions, own up to mistakes, or present a minority viewpoint. Instead, they must be comfortable expressing their thoughts about the work at hand.

*Appreciation of differences.* Learning occurs when people become aware of opposing ideas. Recognizing the value of competing functional outlooks and alternative worldviews increases energy and motivation, sparks fresh thinking, and prevents lethargy and drift.

*Openness to new ideas.* Learning is not simply about correcting mistakes and solving problems. It is also about crafting novel approaches. Employees should be encouraged to take risks and explore the untested and unknown.

*Time for reflection.* All too many managers are judged by the sheer number of hours they work and the tasks they accomplish. When people are too busy or overstressed by deadlines and scheduling pressures, however, their ability to think analytically and creatively is compromised. They become less able to diagnose problems and learn from their experiences. Supportive learning environments allow time for a pause in the action and encourage thoughtful review of the organization's processes.

To change a culture of blame and silence about errors at Children's Hospitals and Clinics of Minnesota, COO Julie Morath instituted a new policy of "blameless reporting" that encouraged replacing threatening terms such as "errors" and "investigations" with less emotionally laden terms such as "accidents" and "analysis." For Morath, the culture of hospitals must be, as she told us, "one of everyone working together to understand safety, identify risks, and report them without fear of blame." The result was that people started to collaborate throughout the organization to talk about and change behaviors, policies, and systems that put patients at risk. Over time, these learning activities yielded measurable reductions in preventable deaths and illnesses at the institution.

BUILDING BLOCK 2

### Concrete Learning Processes and Practices

A learning organization is not cultivated effortlessly. It arises from a series of concrete steps and widely distributed activities, not unlike the workings of business processes such as logistics, billing, order fulfillment, and product development. Learning processes involve the generation, collection, interpretation, and dissemination of information. They include experimentation to develop and test new products and services; intelligence

**When leaders demonstrate a willingness to entertain alternative points of view, employees feel emboldened to offer new ideas.**

gathering to keep track of competitive, customer, and technological trends; disciplined analysis and interpretation to identify and solve problems; and education and training to develop both new and established employees.

For maximum impact, knowledge must be shared in systematic and clearly defined ways. Sharing can take place among individuals, groups, or whole organizations. Knowledge can move laterally or vertically within a firm. The knowledge-sharing process can, for instance, be internally focused, with an eye toward taking corrective action. Right after a project is completed, the process might call for post-audits or reviews that are then shared with others engaged in similar tasks. Alternatively, knowledge sharing can be externally oriented—for instance, it might include regularly scheduled forums with customers or subject-matter experts to gain their perspectives on the company's activities or challenges. Together, these concrete processes ensure that essential information moves quickly and efficiently into the hands and heads of those who need it.

Perhaps the best known example of this approach is the U.S. Army's After Action Review (AAR) process, now widely used by many companies, which involves a systematic debriefing after every mission, project, or critical activity. This process is framed by four simple questions: What did we set out to do? What actually happened? Why did it happen? What do we do next time? (Which activities do we sustain, and which do we improve?) In the army, lessons move quickly up and down the chain of command, and laterally through sanctioned websites. Then the results are codified by the Center for Army Lessons Learned, or CALL. Such dissemination and codification of learning is vital for any organization.

BUILDING BLOCK 3

### Leadership That Reinforces Learning

Organizational learning is strongly influenced by the behavior of leaders. When leaders actively question and listen to employees—and thereby prompt dialogue and debate—people in the institution feel encouraged to learn. If leaders signal the importance of spending time on problem identification, knowledge transfer, and reflective post-audits, these activities are likely to flourish. When people in power demonstrate through their own behavior a willingness to entertain alternative points of view, employees feel emboldened to offer new ideas and options.

Harvey Golub, former chief executive of American Express, was renowned for his ability to teach employees and managers. He pushed hard for active reasoning and forced managers to think creatively and in unexpected ways. A subordinate observed that he often "came at things from a different angle" to ensure that conventional approaches were not accepted without first being scrutinized. "I am far less interested in people having the right answer than in their thinking about issues the right way," Golub told us. "What criteria do they use? Why do they think the way they do? What alternatives have they considered? What premises do they have? What rocks are they standing on?" His questions were not designed to yield

## Idea in Brief

With tougher competition, technology advances, and shifting customer preferences, it's more crucial than ever that companies become *learning organizations.* In a learning organization, employees continually create, acquire, and transfer knowledge—helping their company adapt to the unpredictable faster than rivals can.

But few companies have achieved this ideal. Why? Managers don't know the precise steps for building a learning organization. And they lack tools for assessing whether their teams are learning or how that learning is benefiting the company.

Garvin, Edmondson, and Gino propose a solution. First, understand the three building blocks required for creating learning organizations: 1) a supportive environment, 2) concrete learning processes, and 3) leadership that reinforces learning. Then use the authors' diagnostic tool, the Learning Organization Survey, to determine how well your team, department, or entire company is performing with each building block.

By assessing performance on each building block, you pinpoint areas needing improvement, moving your company that much closer to the learning organization ideal.

particular answers, but rather to generate truly open-minded discussion.

The three building blocks of organizational learning reinforce one another and, to some degree, overlap. Just as leadership behaviors help create and sustain supportive learning environments, such environments make it easier for managers and employees to execute concrete learning processes and practices smoothly and efficiently. Continuing the virtuous circle, concrete processes provide opportunities for leaders to behave in ways that foster learning and to cultivate that behavior in others.

## Uses for the Organizational Learning Tool

Our online diagnostic tool is designed to help you answer two questions about the organizational unit that you lead or in which you work: "To what extent is your unit functioning as a learning organization?" and "What are the relationships among the factors that affect learning in your unit?" People who complete the survey rate how accurately a series of brief, descriptive sentences in each of the three building blocks of learning describe their organization and its learning culture. For the list of statements in the complete survey, information about where to find it online, and details about how it works, see the exhibit "Assess the Depth of Learning in Your Organization."

There are two primary ways to use the survey. First, an individual can take it to get a quick sense of her work unit or project team. Second, several members of a unit can each complete the survey and average their scores. Either way, the next step is to compare individual or group self-evaluations with overall benchmark scores from our baseline group of organizations. The benchmark data are stratified into quartiles—that is, the bottom 25%, the next 25%, and so on—for each attribute, arrayed around a median (see the exhibit "Benchmark Scores for the Learning Organization Survey"). Once you have obtained your own scores online, you can identify the quartile in which your scores fall and reflect on how they match your prior expectations about where you stand.

Having compared individual or unit scores with the benchmarks, it's possible to identify areas of excellence and opportunities for improvement. If employees in multiple units wish to take the survey, you can also make the comparisons unit-by-unit or companywide. Even if just two people from different parts of a firm compare scores, they can pinpoint cultural differences, commonalities, and things to learn from one another. They may also discover that their unit—or even the company—lags behind in many areas. By pooling individual and unit scores, organizations as a whole can begin to address specific problems.

## Holding Up the Mirror at Eutilize

Consider how managers from a major European public utility, which we will call Eutilize, used the survey to assess their company's readiness for and progress in becoming a learning organization. In the summer of 2006, 19 midlevel managers took the survey. Before learning their scores, participants were asked to estimate where they thought Eutilize would stand in relation to the benchmark results from other firms.

Virtually all the participants predicted average or better scores, in keeping with the company's espoused goal of using knowledge and best-practice transfers as a source of competitive advantage. But the results did not validate those predictions. To their great surprise, Eutilize's managers rated themselves below the median baseline scores in almost all categories. For example, out of a possible scaled score of 100, they had 68 on leadership, compared with the median benchmark score of 76. Similarly, they scored 58 on concrete learning processes (versus the median benchmark of 74) and 62 on supportive learning environment (versus the median of 71). These results revealed to the Eutilize managers that integrating systematic learning practices into their organization would take considerable work. However, the poorest-scoring measures, such as experimentation and time for reflection, were common to both Eutilize and the baseline organizations. So Eutilize was not unusual in where it needed to improve, just in how much.

The portrait that emerged was not unexpected for a public utility that had long enjoyed monopolies in a small number of markets and that only recently had established units in other geographic areas. Eutilize's scores in the bottom quartile on openness to new ideas, experimentation, conflict and debate, and information transfer were evidence that changing the company's established culture would be a long haul.

Eutilize's managers also discovered the degree to which their mental models about their own ways of working were inaccurate. For example, they learned that many people in their firm believed that "analysis" was an area of strength for Eutilize, but they interpreted analysis to be merely number crunching. The survey results helped them to understand the term analysis more broadly—to think about the degree to which people

# Assess the Depth of Learning in Your Organization

This diagnostic survey, which you take online, is designed to help you determine how well your company functions as a learning organization. The complete interactive version, available at los.hbs.edu, includes all the self-assessment statements below; they are divided into three sections, each representing one building block of the learning organization. In the first two blocks, your task is to rate, on a seven-point scale, how accurately each statement describes the organizational unit in which you work. In the third block, your task is to rate how often the managers (or manager) to whom you report exemplify the behavior described.

Dynamic scoring online synthesizes your ratings (some are reverse-scored because they reflect undesirable behaviors) and yields an estimated score for each building block and subcomponent. Synthesized scores are then converted to a zero-to-100 scale for ease of comparison with other people in your unit and other units in your organization. In addition, you can compare your scores with benchmark data that appear in the following sidebar.

BUILDING BLOCK 1

## Supportive Learning Environment

**Psychological Safety**

In this unit, it is easy to speak up about what is on your mind.

If you make a mistake in this unit, it is often held against you.*

People in this unit are usually comfortable talking about problems and disagreements.

People in this unit are eager to share information about what does and doesn't work.

Keeping your cards close to your vest is the best way to get ahead in this unit.*

**Appreciation of Differences**

Differences in opinion are welcome in this unit.

Unless an opinion is consistent with what most people in this unit believe, it won't be valued.*

This unit tends to handle differences of opinion privately or off-line, rather than addressing them directly with the group.*

In this unit, people are open to alternative ways of getting work done.

**Openness to New Ideas**

In this unit, people value new ideas.

Unless an idea has been around for a long time, no one in this unit wants to hear it.*

In this unit, people are interested in better ways of doing things.

In this unit, people often resist untried approaches.*

**Time for Reflection**

People in this unit are overly stressed.*

Despite the workload, people in this unit find time to review how the work is going.

In this unit, schedule pressure gets in the way of doing a good job.*

In this unit, people are too busy to invest time in improvement.*

There is simply no time for reflection in this unit.*

BUILDING BLOCK 2

## Concrete Learning Processes and Practices

**Experimentation**

This unit experiments frequently with new ways of working.

This unit experiments frequently with new product or service offerings.

This unit has a formal process for conducting and evaluating experiments or new ideas.

This unit frequently employs prototypes or simulations when trying out new ideas.

**Information Collection**

This unit systematically collects information on

- competitors
- customers
- economic and social trends
- technological trends

This unit frequently compares its performance with that of

- competitors
- best-in-class organizations

**Analysis**

This unit engages in productive conflict and debate during discussions.

This unit seeks out dissenting views during discussions.

This unit never revisits well-established perspectives during discussions.*

This unit frequently identifies and discusses underlying assumptions that might affect key decisions.

This unit never pays attention to different views during discussions.*

**Education and Training**

Newly hired employees in this unit receive adequate training.

Experienced employees in this unit receive

- periodic training and training updates
- training when switching to a new position
- training when new initiatives are launched

In this unit, training is valued.

In this unit, time is made available for education and training activities.

**Information Transfer**

This unit has forums for meeting with and learning from

- experts from other departments, teams, or divisions
- experts from outside the organization
- customers and clients
- suppliers

This unit regularly shares information with networks of experts within the organization.

This unit regularly shares information with networks of experts outside the organization.

This unit quickly and accurately communicates new knowledge to key decision makers.

This unit regularly conducts post-audits and after-action reviews.

BUILDING BLOCK 3

## Leadership That Reinforces Learning

My managers invite input from others in discussions.

My managers acknowledge their own limitations with respect to knowledge, information, or expertise.

My managers ask probing questions.

My managers listen attentively.

My managers encourage multiple points of view.

My managers provide time, resources, and venues for identifying problems and organizational challenges.

My managers provide time, resources, and venues for reflecting and improving on past performance.

My managers criticize views different from their own.*

* Reverse-scored items

For the complete interactive tool, including scoring, go to los.hbs.edu.

## Benchmark Scores for the Learning Organization Survey

Our baseline data was derived from surveys of large groups of senior executives in a variety of industries who completed an eight-week general management program at Harvard Business School. We first conducted the survey in the spring of 2006 with 100 executives in order to evaluate the statistical properties of the survey and assess the underlying constructs. That autumn we surveyed another 125 senior executives to use as our benchmark data.

After you've taken the complete survey at los.hbs.edu, compare the average scores for people in your group with the benchmark scores in the following chart. If your group's scores fall at or below the median in a particular building block or subcomponent—especially if they are in the bottom quartile—consider initiating an improvement effort in that area. One possibility is to assemble a team to brainstorm specific, concrete strategies for enhancing the area of weakness. In any building block or subcomponent where your group's scores fall above the median—especially if they are in the top quartile—consider partnering with other units in your organization that may benefit from specific, concrete strategies that you can articulate and model for them in the area of weakness.

| Building Blocks and Their Subcomponents | Scaled Scores | | | | |
|---|---|---|---|---|---|
| | Bottom quartile | Second quartile | Median | Third quartile | Top quartile |
| **Supportive Learning Environment** | | | | | |
| Psychological safety | 31–66 | 67–75 | 76 | 77–86 | 87–100 |
| Appreciation of differences | 14–56 | 57–63 | 64 | 65–79 | 80–100 |
| Openness to new ideas | 38–80 | 81–89 | 90 | 91–95 | 96–100 |
| Time for reflection | 14–35 | 36–49 | 50 | 51–64 | 65–100 |
| Learning environment composite | 31–61 | 62–70 | 71 | 72–79 | 80–90 |
| **Concrete Learning Processes and Practices** | | | | | |
| Experimentation | 18–53 | 54–70 | 71 | 72–82 | 83–100 |
| Information collection | 23–70 | 71–79 | 80 | 81–89 | 90–100 |
| Analysis | 19–56 | 57–70 | 71 | 72–86 | 87–100 |
| Education and training | 26–68 | 69–79 | 80 | 81–89 | 90–100 |
| Information transfer | 34–60 | 61–70 | 71 | 72–84 | 85–100 |
| Learning processes composite | 31–62 | 63–73 | 74 | 75–82 | 83–97 |
| **Leadership That Reinforces Learning** | | | | | |
| Composite for this block | 33–66 | 67–75 | 76 | 77–82 | 83–100 |

Note: The scaled scores for learning environment and learning processes were computed by multiplying each raw score on the seven-point scale by 100 and dividing it by seven. For learning leadership, which was based on a five-point scale, the divisor was five.

test assumptions, engage in productive debate, and seek out dissenting views. Each of those areas was actually a weakness in the firm. This revelation led Eutilize's managers to understand that without a more open environment buttressed by the right processes and leadership, the company would have difficulty implementing a new strategy it had just adopted.

Eutilize's experience illustrates how our organizational learning tool prompts reflective discussion among managers about their leadership and organizational practices. Without concrete data, such reflection can become abstract and susceptible to idiosyncratic assessments and often emotional disagreements about the current state of affairs. With the survey data in hand, managers had a starting point for discussion, and participants were able to point to specific behaviors, practices, or events that might explain both high and low scores. The results also helped Eutilize's managers to identify the areas where their firm needed special attention.

Given that the survey-based scores derive from perceptions, the best use of the data at Eutilize was, as it would be at any company, to initiate conversation and self-reflection, not to be the sole basis for decision making. Discussions had to be conducted with a healthy balance of what scholars call "advocacy and inquiry." The communication allowed people the latitude to assert their personal observations and preferred suggestions for action, but it also ensured that everyone took the time to carefully consider viewpoints that were not their own. In addition, managers learned the importance of using concrete examples to illustrate interpretations, to refer to specific practices or processes, and to clarify observations. Finally, the participants from Eutilize identified specific actions to be taken. Had they not done so, the discussions could have deteriorated into unproductive complaint sessions.

## Moving Forward: Four Principles

Our experiences developing, testing, and using this survey have provided us with several additional insights for managers who seek to cultivate learning organizations.

**Leadership alone is insufficient.** By modeling desired behaviors—open-minded questioning, thoughtful listening, consideration of multiple options, and acceptance of opposing points of view—leaders are indeed likely to foster greater learning. However, learning-oriented leadership behaviors alone are not enough. The cultural and process dimensions of learning appear to require more explicit, targeted interventions. We studied dozens of organizations in depth when developing our survey questions and then used the instrument with four firms that had diverse sizes, locations, and missions. All four had higher scores in learning leadership than in concrete learning processes or supportive learning environment. Performance often varies from category to category. This suggests that installing formal learning processes and cultivating a supportive learning climate requires steps beyond simply modifying leadership behavior.

**Organizations are not monolithic.** Managers must be sensitive to differences among departmental processes and behaviors as they strive to build learning organizations. Groups may vary in their focus or learning maturity. Managers need to be especially sensitive to local cultures of learning, which can vary widely across units. For example, an early study of medical errors documented significant differences in rates of reported mistakes among nursing units at the same hospital, reflecting variations in norms and behaviors established by unit managers. In most settings, a one-size-fits-all strategy for building a learning organization is unlikely to be successful.

**Comparative performance is the critical scorecard.** Simply because an organization scores itself highly in a certain area of learning behavior or processes does not make that area a source of competitive advantage. Surprisingly, most of the organizations we surveyed identified the very same domains as their areas of strength. "Openness to new ideas" and "education and training" almost universally scored higher than other attributes or categories, probably because of their obvious links to organizational improvement and personal development. A high score therefore conveys limited information about performance. The most important scores on critical learning attributes are relative—how your organization compares with competitors or benchmark data.

**Learning is multidimensional.** All too often, companies' efforts to improve learning are concentrated in a single area—more time for reflection, perhaps, or greater use of post-audits and after-action reviews. Our analysis suggests, however, that each of the building blocks of a learning organization (environment, processes, and leadership behaviors) is itself multidimensional and that those elements respond to different forces. You can enhance learning in an organization in various ways, depending on which subcomponent you emphasize—for example, when it comes to improving the learning environment, one company might want to focus on psychological safety and another on time for reflection. Managers need to be thoughtful when selecting the levers of change and should think broadly about the available options. Our survey opens up the menu of possibilities.

THE GOAL OF our organizational learning tool is to promote dialogue, not critique. All the organizations we studied found that reviewing their survey scores was a chance to look into a mirror. The most productive discussions were those where managers wrestled with the implications of their scores, especially the comparative dimensions (differences by level, subunit, and so forth), instead of simply assessing performance harshly or favorably. These managers sought to understand their organizations' strengths and weaknesses and to paint an honest picture of their cultures and leadership. Not surprisingly, we believe that the learning organization survey is best used not merely as a report card or bottom-line score but rather as a diagnostic instrument—in other words, as a tool to foster learning.

**Managers need to be especially sensitive to local cultures of learning, which can vary widely across units.**

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# Making Business Personal

Companies that turn employees' struggles into growth opportunities are discovering a new kind of competitive advantage.

→ by ROBERT KEGAN, LISA LAHEY, ANDY FLEMING, and MATTHEW MILLER

TO AN EXTENT that we ourselves are only beginning to appreciate, most people at work, even in high-performing organizations, divert considerable energy every day to a second job that no one has hired them to do: preserving their reputations, putting their best selves forward, and hiding their inadequacies from others and themselves. We believe this is the single biggest cause of wasted resources in nearly every company today.

What would happen if people felt no need to do this second job? What if, instead of hiding their weaknesses, they were comfortable acknowledging and learning from them? What if companies made this possible by creating a culture in which people could see their mistakes not as vulnerabilities but as prime opportunities for personal growth?

For three years now, we've been searching for such companies—what we think of as *deliberately developmental organizations*. We asked our extended network of colleagues in academia, consulting, HR, and C-suites if they knew of any organizations that are committed to developing *every one* of their people by weaving personal growth into daily work. We were looking for companies anywhere in the world, public or private, with at least 100 employees and a track record of at least five years.

All that scanning turned up only about 20 companies. In this small pond, two of them stood out: Bridgewater Associates, an East Coast investment firm, and the Decurion Corporation, a California company that owns and manages real estate, movie theaters, and a senior living center. Both had been meeting our definition of a deliberately developmental organization for more than 10 years. Happily, they were in very different businesses and were willing to be studied in depth.

These companies operate on the foundational assumptions that adults can grow; that not only is attention to the bottom line *and* the personal growth of all employees desirable, but the two are interdependent; that both profitability and individual development rely on structures that are built into every aspect of how the company operates; and that people grow through the proper combination of challenge and support, which includes recognizing and transcending their blind spots, limitations, and internal resistance to change. For this approach to succeed, employees (Decurion prefers to call them members) must be willing to reveal their inadequacies at work—not just their business-as-usual, got-it-all-together selves—and the organization must create a trustworthy and reliable community to make such exposure safe.

As you might guess, that isn't easy or comfortable. But by continually working to meet these linked obligations, deliberately developmental organizations may have found a way to steadily improve performance without simply improving what they're currently doing. That's because progress for their employees means becoming not only more capable and conventionally successful but also more flexible, creative, and resilient in the face of the challenges—for both

*Illustration by* **FERNANDO VOLKEN TOGNI**

personal and organizational growth—that these companies deliberately set before them.

## The Companies

Bridgewater Associates, based in Westport, Connecticut, manages approximately $150 billion in global investments in two hedge funds—Pure Alpha Strategy and All Weather Strategy—for institutional clients such as foreign governments, central banks, corporate and public pension funds, university endowments, and charitable foundations. The company began in a two-bedroom apartment in 1975 and is still privately held, currently employing about 1,400 people.

Throughout its nearly four decades, Bridgewater has been recognized as a top-performing money manager; it has won more than 40 industry awards in the past five years alone. At the time of this writing, the Pure Alpha fund had had only one losing year and had gained an average of 14% a year since its founding, in 1991. The All Weather fund, which is designed to make money during good times and bad, has been up 9.5% a year since its launch, in 1996, and delivered an astonishing 34% return from 2009 through 2011, even as the hedge fund industry as a whole underperformed the S&P 500. (The fund apparently did lose money in 2013, according to the *New York Times*.) In both 2010 and 2011 Bridgewater was ranked by *Institutional Investor's Alpha* as the largest and best-performing hedge fund manager in the world. In 2012 the *Economist* credited the firm with having made more money for its investors than any other hedge fund in history. (The previous record holder was George Soros's Quantum Endowment Fund.)

Across the country, in Los Angeles, Decurion employs approximately 1,100 people to manage a portfolio of companies including Robertson Properties Group, with retail and commercial projects in California, Hawaii, and the Pacific Northwest; Pacific Theatres and ArcLight Cinemas; and its newest venture, Hollybrook Senior Living. In May 2011 *Retail Traffic* magazine recognized Robertson Properties as one of the 100 largest shopping center owners and managers in the United States. Pacific and ArcLight combined have the highest gross per screen in North America. ArcLight's revenues have grown by 72% in four years—from $47 million in 2009 to $81 million in 2013. In 2012 *Forbes* named ArcLight's flagship cinema, ArcLight Hollywood, one of the 10 best movie theaters in the United States.

We have spent more than 100 hours each with Bridgewater and Decurion, observing their practices and interviewing their people, from the most senior leaders to the newest recruits. Virtually no aspect of either company was declared off-limits to us. From the extensive data we collected, we extracted the common traits that, we believe, set these companies apart. We shared our observations and generalizations with both of them and seriously considered their suggestions and impressions. Neither one asked us to alter any of our conclusions.

We acknowledge that a deliberately developmental organization is not for everyone—just as the Jesuits are not the only good choice for every man with a fervent religious calling, or the Navy Seals for every committed commander. But we offer our observations of these two companies as evidence that quests for business excellence and individual fulfillment need not be at odds—and that they can be combined in such a way that each causes the other to flourish.

## The Practices

Ordinarily, people acknowledge their vulnerability and imperfections only in rare moments behind closed doors with trusted advisers who swear to protect their privacy. But what we saw at Decurion and Bridgewater was a pervasive effort to enable employees to feel valuable even when they're screwing up—to see limitations not as failures but as their "growing edge," the path to the next level of performance.

**Getting to the other side.** Transcending your limits—which Bridgewater calls *getting to the other side*—involves overcoming the fight-or-flight response occasioned by confronting what you are working on about yourself. In a traditional company, root-cause analysis of a problem will stop shy of crossing into an employee's interior world. At Bridgewater, examining a failed investment decision certainly includes a root-cause analysis of the specific data, decision criteria, and steps taken to make the investments. But it goes further, asking, "What is it about how you—the responsible party and shaper of this process—were thinking that might have led to an inadequate decision?"

Consider, for instance, how one Bridgewater employee, John Woody, confronted what CEO Ray Dalio called his "reliability problems," as recorded in a 2013 Harvard Business School case prepared by Jeffrey Polzer and Heidi Gardner. Pulling no punches, Dalio told Woody that the perception across the organization was that he could not be counted on. Woody's immediate reaction was to angrily reject the feedback. But he did not go off to nurse his grievances or even to uncritically accept what

he'd heard. As he began to consider the exchange, he first saw the irony of his reaction. "Here we pride ourselves on being logical and facing the truth, but my initial response was 'You're wrong!' which is me already being illogical," he says. "Even if what he was saying was not true, I was giving him no chance to show me it might be."

After continued reflection and conversations with many people in the organization over many weeks, Woody began to recognize in himself a behavior pattern "that goes all the way back to when I was a kid": He resisted others' control and oversight and was quick to anger when challenged. Looking at the gap between how he wanted to be seen and how he was seen, he realized that he wanted to be "the guy you could give the ball to on the two-yard line"—but that others did not perceive him that way. "People were saying they are unsure I'll even be there to catch it, let alone be able to run it in. And that hurt."

Early on, nearly everyone finds this level of vulnerability disorienting, no matter how enthusiastic he or she may have been about the culture during the hiring process. Dalio acknowledged this fact in a companywide e-mail with the subject line "I fail every day," in which he challenged employees with this question: "Do you worry more about how good you are or about how fast you are learning?" Shifting focus from the former to the latter can lead simultaneously to important personal changes and increased business effectiveness.

When Inna Markus, a member of our research team, asked Woody what progress he was making on his reliability problem, he insisted that he still had a long way to go. Yet it is clear that he has come quite a distance already: "I prioritize more ruthlessly," he says, "pause longer and more thoughtfully before promising things to others, visualize more granularly how I will actually get something done, check in with those who ask things of me more frequently and with more questions, and lean on those around me much more explicitly now than I ever did."

Bridgewater uses a variety of tools and practices to help people learn to treat errors as growth opportunities. For instance, all employees record problems and failures in a companywide "issues log," detailing their own contributions to mistakes. Logging in errors and problems is applauded and rewarded. Not recording a mistake is viewed as a serious breach of duty. Another reflective practice involves a "pain button" app, which is installed on everyone's company-issued iPad and allows employees to share experiences of negative emotions at work—especially those that raise their defenses.

Openly acknowledging those experiences prompts follow-up conversations among the parties involved as they seek to explore the "truth of the situation" and identify ways to address the underlying causes. In one such conversation, a senior manager led members of a work group through a collective diagnosis of why a previous meeting had meandered and failed to reach a productive conclusion. Everyone offered thoughts. The employee who'd led that meeting agreed that he'd gotten wrapped up in defending his own and his colleagues' shoddy work. More than that, he allowed, this was an instance of a bigger, previously unacknowledged tendency he had to worry more about looking good than about achieving the business goal. At most companies a conversation like this would rarely turn toward examining an employee's habitual way of thinking—and if it did, it would be in a closed-door performance review. At Bridgewater such analysis happens in routine meetings with colleagues.

**Closing the gaps.** Ordinarily, in an effort to protect ourselves, we allow gaps to form—between plans and actions, between ourselves and others, between who we are at work and our "real selves," between what we say at the coffee machine and what we say in the meeting room. These gaps are most often created by the conversations we are *not* having, the synchronicities with others we're *not* achieving, and the work that, out of self-protection, we're avoiding.

To help close these gaps, and to gain more immediate access to the business issues at stake, Bridgewater and Decurion have created discussion formats that allow employees to speak authentically about the personal dimensions of those issues. Bridgewater uses a group probing of an individual's reasoning, as described above. Decurion conducts what it calls a fishbowl conversation, in which several people sit in the middle of a circle of their colleagues. In one such conversation we watched three employees from the IT,

## Idea in Brief

**THE PROBLEM**
Most people at work are doing a second job that no one's paying them to do—preserving their reputations, putting their best selves forward, hiding their inadequacies.

**THE PROPOSITION**
What if a company was set up in such a way that instead of hiding their weaknesses, employees used them as opportunities for both personal and business growth?

**THE RESULT**
The examples of two very different companies—a hedge fund and a movie theater operator—suggest that it's possible to meld business growth with personal growth in every employee's day-to-day work.

## *Leading* a Deliberately Developmental Organization

If you are a leader who wants to build a DDO, you should understand that you can't want it just for the company. You must want it for yourself. You must be prepared to participate fully and even to "go first" in making your own limitations public. You must also not want it just to generate extraordinary business results—you must put equal value on leading a company that contributes to the flourishing of its people as an end in itself. You will need patience: It takes time to develop an environment in which people feel safe doing the personal work they'll be asked to do on a regular basis. And you must continually support, defend, and champion this new form of community.

Building an effective DDO also requires that new people be chosen very carefully, with an eye to their appetite for personal reflection and their comfort with examining their own limitations. Even so, it may take 12 to 18 months to be sure that a new hire will do well in this culture, so you should be prepared for a higher rate of turnover than you might otherwise expect. But the people who make it through this induction will most likely display dramatic levels of commitment and engagement.

A sustainable DDO culture depends on a critical mass of people who are together long enough to build strong relationships and gain experience with the practices that facilitate development over time. Thus we question the value of this approach for companies that work on a contractor model and maintain flexibility by depending heavily on free agents, because turnover for them might be too high, and commitment to the organization too low.

marketing, and operations arms of the theater business talk about why a new customer-loyalty program seemed to be stalling. The COO of the theater division suspected that these three key players were not communicating effectively. So she asked them to describe how they were experiencing the situation. The fishbowl format enabled the wider theater managers' group to listen to, learn from, and participate in the conversation. With careful facilitation by another senior manager, the three were able to express the ways in which they each felt shut out or shut down by the other two when decisions were made and information should have been shared. Each also identified some personal trigger or blind spot that had led him or her to shut down one of the others. They could then reach agreement in the presence of colleagues about how to proceed in a different way. Because dialogues like these are routine, people view them as a healthy exercise in sharing vulnerability, rather than a rare and threatening experience.

Over time, exposing one's own vulnerability feels less risky and more worthwhile as people repeatedly witness and participate in conversations about conflict, revelations of their colleagues' weaknesses, and discussions of the undiscussable. In fact, these organizations' most surprising and hopeful accomplishment may be converting their employees' default view of the "unimaginably bad" (*If I risk showing my weaknesses, it will be just horrible!*) into a sense of developmental progress (*If I risk showing my weaknesses, nothing bad will happen to me, I'll probably learn something, and I'll be better for it in the end*). The gap between who they really are and who they think they need to be at work diminishes or even disappears.

**Constructive destabilization.** Deliberately developmental organizations don't just accept their employees' inadequacies; they cultivate them. Both Bridgewater and Decurion give a lot of attention to finding a good fit between the person and the role. But here "good fit" means being regularly, though manageably, in over your head—what we call *constructive destabilization*. Constantly finding yourself a bit at sea is destabilizing. Working through that is constructive. At both companies, if it's clear that you can perform all your responsibilities at a high level, you are no longer in the right job. If you want to stay in that job, having finally mastered it, you'll be seen as someone who prefers to coast—and should be working for a different kind of company.

Many organizations offer people stretch assignments. Some commonly rotate high potentials through a series of stretch jobs. At Bridgewater and Decurion all jobs are stretch jobs. As Dalio puts it, "Every job should be like a towrope, so that as you grab hold of the job, the very process of doing the work pulls you up the mountain."

Decurion's ArcLight Cinemas has an elaborate set of practices that allow managers at all levels to facilitate constructive destabilization by matching individuals and groups to appropriate development opportunities. The general manager at each location uses data about individual growth to identify ideal job assignments for every employee every week—assignments meant to serve both the crew member's development and the company's business needs.

The management team at each location meets weekly to discuss the goals and performance of each hourly employee and to decide whether someone is ready for more responsibility—say, a reassignment from ticket taker to auditorium scout. (Scouts move from one screen to another looking for ways to assist customers; the job requires a fair amount of initiative, creativity, problem solving, and diplomacy.)

As employees demonstrate new capabilities, their progress is recorded on "competency boards," which are set up in a central back-of-house location in each theater. Colored pins on these boards indicate the capability level of each employee in 15 identified job competencies. This information is used to schedule shift rotations, facilitate peer mentoring, and set expectations for learning as part of a development pipeline. The process meshes individuals' skills with organizational requirements; everyone can see how important individual growth is to the business and how everyone else's job knowledge is expanding. At weekly meetings about a dozen home-office executives and movie house general managers review a dashboard showing theater-level and circuit-level business metrics, which include not only traditional industry data on attendance and sales but also the number of crew members ready for promotion to the first tier of management.

Matching a person to an appropriate stretch job is only half the equation. The other half is aligning the job with the person. Decurion creates numerous opportunities for employees to connect their day-to-day work with what is meaningful to them. At most team meetings, for instance, structured check-ins at the beginning and checkouts at the end allow people to identify ways in which they feel connected to—or disconnected from—the work at hand and their colleagues. A manager might, for instance, describe a communication breakthrough with a colleague and how it has made a shared project even more meaningful. Another manager might report on progress in curbing her tendency to jump in and save the day rather than let the team step up and feel fully accountable.

At one-on-one "touchpoint" meetings with their managers—which happen frequently at all levels of the company—employees can discuss how to realize their personal goals through opportunities tied to Decurion's business needs. One member of a theater crew, for instance, who aspired to become a set decorator (outside Decurion), told us that such a dialogue prompted her general manager to involve her in decor for special events at the cinema—an activity far beyond the scope of her job—in order to align her personal interests with an organizational goal.

For a company to match people with jobs on a continual and granular basis requires that no particular job be dependent on or identified with a single person. That means relinquishing the security of being able to count on someone with long tenure and expertise in a certain role. One senior executive told us, "The purpose of your expertise is to give it away [to the next person coming up]. That sounds wonderful, but in practice—and I have experienced this personally—it is not always easy." Still, all those people constantly growing into ever-changing roles create an organization that becomes

## *Joining* a Deliberately Developmental Organization

Ray Dalio and one of us (Bob Kegan) were present for the initial presentation of a Harvard Business School case on Bridgewater. Heidi Gardner, a case coauthor, asked the students toward the end of the discussion, "So how many of you would like to work at Bridgewater?" Just three or four hands went up in a class of 80. "Why not?" she asked. One young woman who'd been an active and impressive contributor to the case conversation replied, "I want people at work to think I'm *better* than I am; I don't want them to see how I *really* am!"

Clearly, people who consider joining a DDO must be willing to show themselves at their worst. And those who join with a distinguished record must be willing to consider big changes in the way they operate. Senior hires at both Decurion and Bridgewater told us: "I heard the words about how it was going to be different, but I didn't understand what that would mean for me."

A DDO makes work deeply engaging; it becomes a way of life. If you want to be able to go home and leave work completely behind, this may not be the right place for you.

The brand of happiness a DDO offers—which arises from becoming a better version of yourself—involves labor pains. Some people might think they would appreciate that but really would not. Others simply cannot imagine that pain at work could lead to something expansive and life changing.

Finally, a DDO is continually evolving. If you expect a workplace to never fall short of its most inspiring principles and guiding ideas, you will quickly be disappointed. A DDO makes space for its people to grow; they must make space for it to develop in return.

more resilient even as it improves the execution of its current strategy.

**Everyone is a designer.** If something isn't working optimally at Bridgewater or Decurion, it's everyone's responsibility to scrutinize and address the design of the underlying process. For example, frequent "pulse-check huddles" at Decurion allow theater crew members to analyze how a previous set of shows went. In these huddles we saw 17-year-old employees give and receive feedback with their peers and managers about problems in floor operations and ways to improve service for the next set of shows. These young people had learned early on to read the details of the theater's profit-and-loss statement so that they could understand how every aspect of operations (and, by extension, their own actions) contributed to its short- and long-term profitability. When offering ideas for improvements—such as changes in food preparation or readying 3-D glasses for distribution—they spoke in terms of their effect on the guest experience and the financial health of the business.

If a new line of business is being launched, a team will spend lavish amounts of time designing the right process for managing the work. Decurion's employees operate on the assumption that structure drives behavior, so they often focus on subtle aspects of organizational design, such as how offices are arranged, how frequently conversations happen, and what tasks will require collaboration among which people. Unlike Lean Six Sigma and other quality improvement approaches, process improvement at Decurion and Bridgewater integrates a traditional analysis of production errors and anomalies with efforts to correct employees' "interior production errors and anomalies"—that is, their faulty thinking and invalid assumptions.

A major initiative at ArcLight, for example, involved creating teams made up of marketing professionals from the home office and general managers of individual theaters. The company reasoned that if the friction and misunderstanding that typically exist between these groups could be overcome by focusing their collective expertise in small, location-specific teams, improved local film and special-event marketing would produce millions in additional revenue. We observed several such teams holding regular meetings in which they shared ways they were learning to work effectively together and things that still needed improvement. From these discussions it became apparent that audiences varied more from cinema to cinema than the home-office marketers had realized. As they integrated general managers' specialized knowledge about their customers into a nimbler social media strategy, the group's financial performance improved. The managers and marketers stretched themselves to pull together in a new way—and hit new revenue targets. ArcLight's people were as likely to tell us that those revenue targets were designed to stretch people's capabilities as the other way around, illustrating the integrated nature of business and personal development at the company.

**Taking the time for growth.** When people first hear stories like these, a common reaction is "I can't believe the time they devote to the people processes," usually in a tone suggesting "This is crazy! How can you do this and get anything done?" But Decurion and Bridgewater are not just successful incubators of employee development; they are successful by conventional business benchmarks. Clearly they *do* get things done, and very well.

The simple explanation is that these companies look differently at how they spend time. Conventional organizations may pride themselves on how efficiently they agree on solutions to problems. But do they have so many "efficient" meetings because they haven't identified the personal issues and group dynamics that underlie recurring versions of the same problem? A senior investment analyst at Bridgewater puts it this way: "[The company] calls you on your 'bad,' but, much more than that, it basically takes the position that *you* can do something about this, become a better version of yourself, and when you do, we will be a better company because of it."

## The Community

If people must be vulnerable in order to grow, they need a community that will make them feel safe. Deliberately developmental organizations create that community through virtues common to many high-performance organizations—accountability, transparency, and support. But, arguably, they take them to a level that even the most progressive conventional organizations might find uncomfortable.

**Accountability.** Bridgewater and Decurion are not flat organizations. They have hierarchies. People report to other people. Tough decisions are made. Businesses are shuttered. People are let go. But rank doesn't give top executives a free pass on the merit of their ideas, nor does it exempt them from the disagreement or friendly advice of those lower down or from the requirement to keep growing and changing to serve the needs of the business and themselves.

Senior leaders are governed by the same structures and practices that apply to other employees. At Decurion they

take part in check-ins, sharing their own concerns and failures. At Bridgewater their performance reviews are public, as are all other employees'. And every one of those reviews mentions areas of needed improvement—if they didn't, that would mean those leaders were in the wrong roles.

Thus Dalio explicitly states that he doesn't want his employees to accept a word he says until they have critically examined it for themselves. And Christopher Forman, Decurion's president, has helped create a voluntary 10-week course, The Practice of Self-Management, which many employees have taken several times. The course is taught by Forman and other Decurion leaders, including the head of the real estate company, who told us, "My colleagues didn't feel I'd mastered the material, so they asked me to teach it myself next time around. A typical Decurion move, this caused me to understand the ideas and practices at a much deeper level and to see how to apply them to the businesses."

**Transparency.** When, in 2008, Decurion's leaders decided to reduce the size of the headquarters staff by 65%, external experts advised them not to tell the employees until the last possible moment, to avoid damaging morale and to prevent the people they wanted to retain from seeking other positions. Instead, they announced their decision immediately.

They enlisted everyone in the transition process, sugarcoated nothing, and shared the financial details behind the decision. Forman explains, "We chose to trust that people could hold this [information]." No resignations followed. Why? "We created a context in which everyone was able to contribute and to grow," Forman says, "both those who wound up staying with the company and those who left." Trusting employees in this way enabled them to reciprocate, to believe that the downsizing was a growth experience that would make them more valuable to the organization—or to future employers.

At Bridgewater every meeting is recorded, and unless proprietary client information was discussed, all employees have access to every recording. All offices are equipped with audio or video recording technology. If an employee's bosses discuss his performance and he wasn't invited to the meeting, the tape is available to him. And he doesn't have to scour every tape to find out if he was the subject of some closed-door conversation. In fact, he's likely to be given a heads-up so that he *will* review the tape.

Initially, Bridgewater's attorneys strenuously advised against this practice. But no longer. In three lawsuits subsequent to its initiation, all three rulings favored Bridgewater precisely because the company could produce the relevant tapes. "And if the tapes show we *did* do something wrong," one senior leader told us, "then we *should* receive a negative judgment."

**Support.** At both companies everyone from entry-level worker to CEO has a "crew"—an ongoing group that can be counted on to support his or her growth, both professionally and personally. Certainly, good teams in conventional companies also offer moral support. People form bonds, trust one another, and talk about personal things that relate to work and to life beyond work. But these conversations are usually about coping with the potentially destabilizing stresses of the job. In a deliberately developmental organization, the crew is meant to be as much an instrument of that destabilization as a support of one's growth through vulnerability. Decurion and Bridgewater people, including industry leaders whose prior work at other companies had been marked by extraordinary success, mentioned again and again that they felt "ill-equipped," "immobilized," "out on a rope without a net," "beyond my competencies," "repeatedly ineffective with no guarantees I would get it." And yet a team that tried to support someone by reducing destabilization—*restoring* equilibrium—would be seen as doing him no service at all.

MANY FINE ORGANIZATIONS that are not deliberately developmental and may have no interest in becoming so are nonetheless able to create cultures that foster a sense of family fellowship. They demonstrate that a deep sense of human connectedness at work can be unleashed in many ways. But a deliberately developmental organization may create a special kind of community. Experiencing yourself as incomplete or inadequate but still included, accepted, and valued—and recognizing the very capable people around you as also incomplete but likewise valuable—seems to give rise to qualities of compassion and appreciation that can benefit all relationships.

As psychologists, we have sometimes seen this unusual kind of connection among the members of a personal-learning program or a facilitated support group. From such groups we can glimpse the possibility of a new kind of community, as we take up the interior work of our own growth. But these programs are not meant to be permanent or to address the work of the world. By their existence as vibrant, successful companies, Decurion and Bridgewater offer a form of proof that the quest for business excellence and the search for personal realization need not be mutually exclusive—and can, in fact, be essential to each other.

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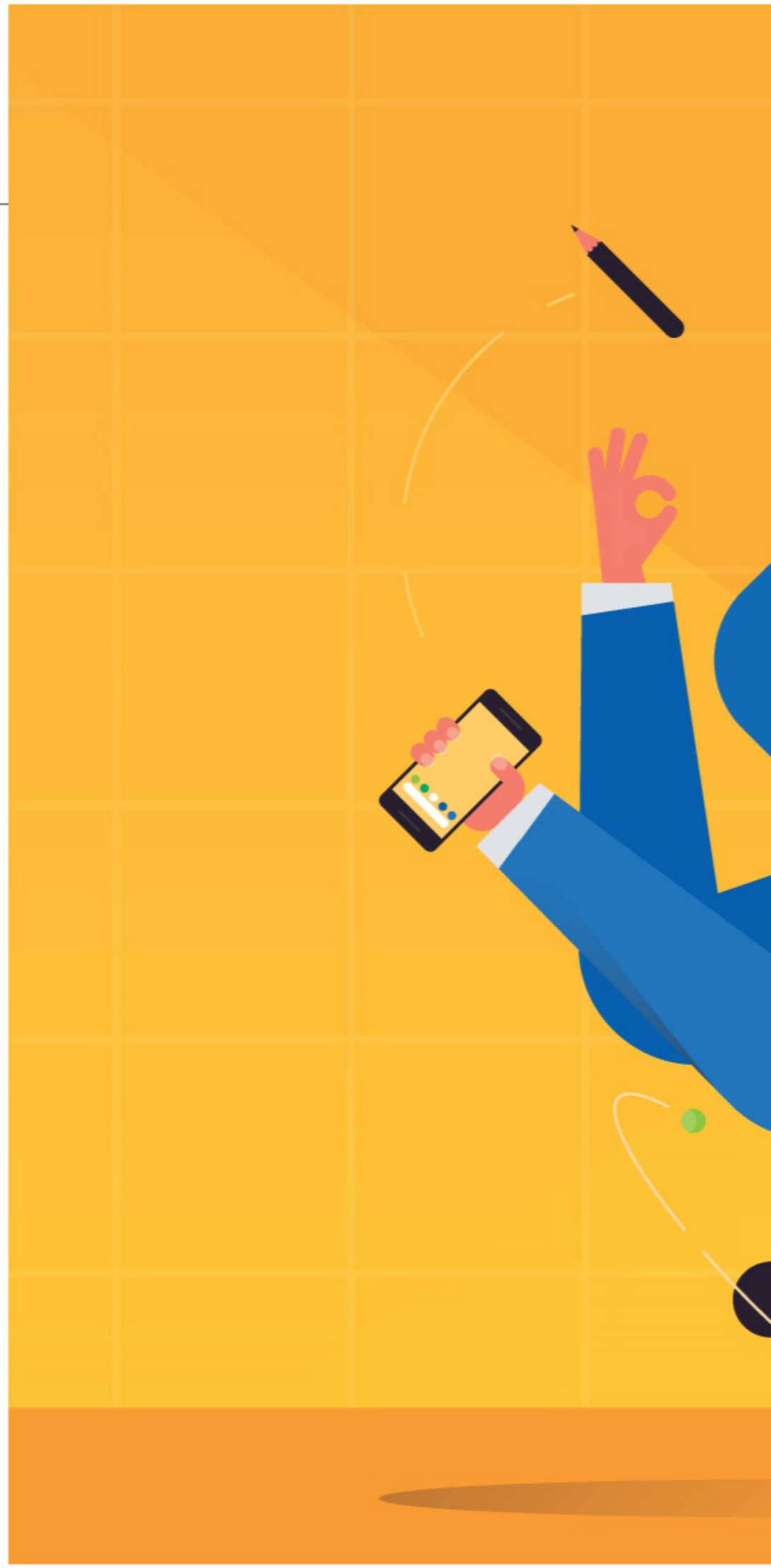

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# Learning in the Thick of It

After-action reviews identify past mistakes but rarely enhance future performance. Companies wanting to fully exploit this tool should look to its master: the U.S. Army's standing enemy brigade, where soldiers learn and improve even in the midst of battle.

→ by MARILYN DARLING, CHARLES PARRY, and JOSEPH MOORE



*Illustration by* **FERNANDO VOLKEN TOGNI**

## Idea in Brief

Like many managers, you probably conduct after-action reviews (AARs) to extract lessons from key projects and apply them to others. But in most companies, AARs don't fulfill their promise: Scrapped projects, poor investments, and failed safety measures repeat themselves—while hoped-for gains rarely materialize. One manufacturing executive, reading an AAR report for a failed project that had stumbled twice before, realized with horror that the team was "discovering" the same mistakes all over again.

How to transform your AARs from diagnoses of past failure into aids for future success? Realize that looking for lessons isn't the same as learning them. View the AAR as an ongoing learning process—rather than a one-time meeting, report, or postmortem. Set the stage for AARs with rigorous before-action planning—articulating your intended results, anticipated challenges, and lessons from previous similar situations. Conduct mini-AARs after each project milestone—holding everyone accountable for applying key lessons quickly in the next project phase.

Companies that master this process gain—and sustain—competitive advantage. They avoid repeating the kinds of errors that gnaw away at stakeholder value. And instead of merely fixing problems, they adapt more rapidly and effectively than rivals to challenges no one even imagined.


IMAGINE AN ORGANIZATION that confronts constantly changing competitors. That is always smaller and less well-equipped than its opponents. That routinely cuts its manpower and resources. That turns over a third of its leaders every year. And that still manages to win competition after competition after competition.

The U.S. Army's Opposing Force (commonly known as OPFOR), a 2,500-member brigade whose job is to help prepare soldiers for combat, is just such an organization. Created to be the meanest, toughest foe troops will ever face, OPFOR engages units-in-training in a variety of mock campaigns under a wide range of conditions. Every month, a fresh brigade of more than 4,000 soldiers takes on this standing enemy, which, depending on the scenario, may play the role of a hostile army or insurgents, paramilitary units, or terrorists. The two sides battle on foot, in tanks, and in helicopters dodging artillery, land mines, and chemical weapons.

Stationed on a vast, isolated stretch of California desert, OPFOR has the home-court advantage. But the force that's being trained—called Blue Force, or BLUFOR, for the duration of the exercise—is numerically and technologically superior. It possesses more dedicated resources and better, more rapidly available data. It is made up of experienced soldiers. And it knows just what to expect, because OPFOR shares its methods from previous campaigns with BLUFOR's commanders. In short, each of these very capable BLUFOR brigades is given practically every edge. Yet OPFOR almost always wins.

Underlying OPFOR's consistent success is the way it uses the *after-action review* (AAR), a method for extracting lessons from one event or project and applying them to others. The AAR, which has evolved over the past two decades, originated at OPFOR's parent organization, the National Training Center (NTC). AAR meetings became a popular business tool after Shell Oil began experimenting with them in 1998 at the suggestion of board member Gordon Sullivan, a retired general. Teams at such companies as Colgate-Palmolive, DTE Energy, Harley-Davidson, and J.M. Huber use these reviews to identify both best practices (which they want to spread) and mistakes (which they don't want to repeat).

Most corporate AARs, however, are faint echoes of the rigorous reviews OPFOR performs. It is simply too easy for companies to turn the process into a pro forma wrap-up. All too often, scrapped projects, poor investments, and failed safety measures end up repeating themselves. Efficient shortcuts, smart solutions, and sound strategies don't.

For companies that want to transform their AARs from postmortems of past failure into aids for future success, there is no better teacher than the technique's master practitioner. OPFOR treats every action as an opportunity for learning—about what to do but also, more important, about how to think. Instead of producing static "knowledge assets" to file away in a management report or repository, OPFOR's AARs generate raw material that the brigade feeds back into the execution cycle. And while OPFOR's reviews extract numerous lessons, the group does not consider a lesson to be truly learned until it is successfully applied and validated.

The battlefield of troops, tanks, and tear gas is very different from the battlefield of products, prices, and profits. But companies that adapt OPFOR's principles to their own practices will be able to integrate leadership, learning, and execution to gain rapid and sustained competitive advantage.

## Why Companies Don't Learn

An appreciation of what OPFOR does right begins with an understanding of what businesses do wrong. To see why even organizations that focus on learning often repeat mistakes, we analyzed the AAR and similar "lessons learned" processes at more than a dozen corporations, nonprofits, and government agencies. The fundamentals are essentially the same at each: Following a project or event, team members gather to share insights and identify mistakes and successes. Their conclusions are expected to flow—by formal or informal channels—to other teams and eventually coalesce into best practices and global standards.

Mostly though, that doesn't happen. Although the companies we studied actively look for lessons, few learn them in a meaningful way. One leader at a large manufacturing company told us about an after-action review for a failed project that had already broken down twice before. Having read reports from the earlier attempts' AARs—which consisted primarily of one-on-one interviews—she realized with horror after several grueling hours that the team was "discovering" the same mistakes all over again.

A somewhat different problem cropped up at a telecom company we visited. A team of project managers there conducted rigorous milestone reviews and wrap-up AAR meetings on each of its projects, identifying problems and creating technical fixes to avoid them in future initiatives. But it made no effort to apply what it was learning to actions and decisions taken on its current projects. After several months, the team had so overwhelmed the system with new steps and checks that the process itself began causing delays. Rather than improving learning and performance, the AARs were reducing the team's ability to solve its problems.

We also studied a public agency that was running dozens of similar projects simultaneously. At the end of each project, team leaders were asked to complete a lessons-learned questionnaire about the methods they would or would not use again; what training the team had needed; how well members communicated; and whether the planning had been effective. But the projects ran for years, and memory is less reliable than observation. Consequently, the responses of the few leaders who bothered to fill out the forms were often sweepingly positive—and utterly useless.

Those failures and many more like them stem from three common misconceptions about the nature of an AAR: that it is a meeting, that it is a report, or that it is a postmortem. In fact, an AAR should be more verb than noun—a living, pervasive process that explicitly connects past experience with future action. That is the AAR as it was conceived back in 1981 to help Army leaders adapt quickly in the dynamic, unpredictable

## Learning to Be OPFOR

The 11th Armored Cavalry Regiment (ACR), which has played the Opposing Force (OPFOR) for more than a decade, is a brigade of regular U.S. Army soldiers. In the current environment, every Army unit that is deployable has been activated—including the 11th ACR, which is now overseas.

It will return. In the meantime, a National Guard unit that fought side by side with the 11th ACR for ten years has assumed the OPFOR mantle. This new OPFOR faces even greater challenges than the regular brigade did. It is smaller. It comprises not professional soldiers but weekend warriors from such companies as UPS and Nextel. And it recently gave up its home-court advantage and traveled to BLUFOR's home base when that unit-in-training's deployment date was moved up.

Nonetheless, the Army is satisfied that this new OPFOR—now one year into its role—is successfully preparing combat units for deployment to the Middle East. It has managed that, in large part, by leveraging the after-action review (AAR) regimen it learned from the 11th ACR. It is difficult to imagine a more dramatic change than the wholesale replacement of one team by another. That the new OPFOR has met this challenge is powerful evidence of the AAR's efficacy to help an organization learn and adapt quickly.

situations they were sure to face. And that is the AAR as OPFOR practices it every day.

## More Than a Meeting

Much of the civilian world's confusion over AARs began because management writers focused only on the AAR meeting itself. OPFOR's AARs, by contrast, are part of a cycle that starts before and continues throughout each campaign against BLUFOR. (BLUFOR units conduct AARs as well, but OPFOR has made a fine art of them.) OPFOR's AAR regimen includes brief huddles, extended planning and review sessions, copious note-taking by everyone, and the explicit linking of lessons to future actions.

The AAR cycle for each phase of the campaign begins when the senior commander drafts "operational orders." This document consists of four parts: the task (what actions subordinate units must take); the purpose (why the task is important); the commander's intent (what the senior leader is thinking, explained so that subordinates can pursue his goals even if events don't unfold as expected); and the end state (what the desired result is). It might look like this:

> TASK: *"Seize key terrain in the vicinity of Tiefort City..."*
>
> PURPOSE: *"...so that the main effort can safely pass to the north."*
>
> COMMANDER'S INTENT: *"I want to find the enemy's strength and place fixing forces there while our assault force maneuvers to his flank to complete the enemy's defeat. The plan calls for that to happen here, but if it doesn't, you leaders have to tell me where the enemy is and which flank is vulnerable."*
>
> END STATE: *"In the end, I want our forces in control of the key terrain, with all enemy units defeated or cut off from their supplies."*

The commander shares these orders with his subordinate commanders—the leaders in charge of infantry, munitions, intelligence, logistics, artillery, air, engineers, and communications. He then asks each for a "brief back"—a verbal description of the unit's understanding of its mission (to ensure everyone is on the same page) and its role. This step builds accountability: "You said it. I heard it." The brief back subsequently guides these leaders as they work out execution plans with their subordinates.

Later that day, or the next morning, the commander's executive officer (his second-in-command) plans and conducts a rehearsal, which includes every key participant. Most rehearsals take place on a scale model of the battlefield, complete with hills sculpted from sand, spray-painted roads, and placards denoting major landmarks. The rehearsal starts with a restatement of the mission and the senior commander's intent, an intelligence update on enemy positions and strength, and a breakdown of the battle's projected critical phases. Each time the executive officer calls out a phase, the unit leaders step out onto the terrain model to the position they expect to occupy during that part of the action. They state their groups' tasks and purposes within the larger mission, the techniques they will apply in that phase, and the resources they expect to have available. After some discussion about what tactics the enemy might use and how units will communicate and coordinate in the thick of battle, the executive officer calls out the next phase and the process is repeated.

As a result of this disciplined preparation, the action that follows becomes a learning experiment. Each unit within OPFOR has established a clear understanding of what it intends to do and how it plans to do it and has shared that understanding with all other units. The units have individually and collectively made predictions about what will occur, identified challenges that may arise, and built into their plans ways to address those challenges. So when OPFOR acts, it will be executing a plan but also observing and testing that plan. The early meetings and rehearsals produce a testable hypothesis: "In *this* situation, given *this* mission, if we take *this* action, we will accomplish *that* outcome." OPFOR is thus able to select the crucial lessons it wants to learn from each action and focus soldiers' attention on them in advance.

Such before-action planning helps establish the agenda for after-action meetings. Conversely, the rigor of the AAR meetings improves the care and precision that go into the before-action planning. As one OPFOR leader explained to us: "We live in an environment where we know we will have an AAR, and we will have to say out loud what worked and what didn't. That leads to asking tough questions during the planning phase or rehearsals so that you know you have it as right as you can get it. No subordinate will let the boss waffle on something for long before challenging him to say it clearly because it will only come out later in the AAR. As

# Five Ways to Put AARs to Work at Work

The U.S. Army's standing enemy brigade (referred to as OPFOR) applies the after-action review (AAR) process to everything it does, but that's not realistic for most companies. Business leaders must act selectively, with an eye toward resources and potential payoffs. Don't even think about creating an AAR regimen without determining who is likely to learn from it and how they will benefit. Build slowly, beginning with activities where the payoff is greatest and where leaders have committed to working through several AAR cycles. Focus on areas critical to a team's mission so members have good reason to participate. And customize the process to fit each project and project phase. For example, during periods of intense activity, brief daily AAR meetings can help teams coordinate and improve the next day's activities. At other times, meetings might occur monthly or quarterly and be used to identify exceptions in volumes of operational data and to understand the causes. The level of activity should always match the potential value of lessons learned. Below are some ways you can use AARs, based on examples from companies that have used them effectively.

| | The AAR in practice | The payoff |
|---|---|---|
| **1. Emergency response** | • Survey past emergencies to identify types of events and learning challenges.<br>• Ask team members to take notes during the response process to facilitate the upcoming AAR.<br>• Conduct AARs during the response process (if possible) or immediately afterward to begin building procedures and long-term solutions.<br>• Periodically review past AARs to identify potential systems improvements. | • Avoid similar emergencies in the future.<br>• Improve the speed and quality of your responses and damage control.<br>• Improve the long-term effectiveness of your solutions. |
| **2. Product development** | • Start each phase of product development with a before-action review (BAR).<br>• Conduct AARs to identify insights to feed from one phase of product development into the next—and then into the next project.<br>• Periodically conduct AARs on the product-planning process to identify potential improvements. | • Improve quality, reduce cost, and shorten time to market.<br>• Anticipate customers' changing expectations. |
| **3. Entering a new business or market** | • Launch business planning with a BAR to reflect on past lessons.<br>• Conduct AARs throughout the launch process to test lessons and create innovative solutions.<br>• Conduct a wrap-up AAR to improve performance on the next venture. | • Apply lessons from past successes and failures to improve results on new ventures. |
| **4. Sales** | • Build AARs into the sales process, focusing as much on learning from wins as from losses.<br>• Conduct AARs on customer defections to competitors' products. | • Improve the win/loss ratio.<br>• Refine the value proposition for a new product. |
| **5. Mergers and acquisitions** | • Build AARs into strategy, negotiation, due diligence, and execution phases to continually reveal, test, and modify assumptions about the deal.<br>• Wrap up each M&A activity by comparing it with previous efforts to identify problems and good ideas. | • Ensure that transactions deliver promised value to stakeholders. |

## Doctrine and Tactics

The lessons produced and validated by the U.S. Army's Opposing Force (OPFOR) and the units it trains at the National Training Center (NTC) in Fort Irwin, California, contribute to the Army's two classes of organizational knowledge. One class, known as Tactics, Techniques, and Procedures (TTP), focuses on how to perform specific tasks under specific conditions. It is the responsibility of each unit leader to build her own library of TTP by learning from other leaders as well as by capturing good ideas from her subordinates. Two unit leaders in the same brigade may need to employ different TTP to address different conditions.

Sufficiently weighty, widely applicable, and rigorously tested TTP may ultimately inform the Army's other class of organizational knowledge: doctrine. Doctrine—which rarely changes and is shared by the entire Army—establishes performance standards for the kinds of actions and conditions military units commonly face. For example, many of the steps in the doctrine for a brigade-level attack (such as planning for mobility, survivability, and air defense) began life as lessons from the NTC and other Army training centers.

The difference between doctrine and TTP is a useful one for businesses, some of which draw few distinctions among the types of knowledge employees generate and about how widely diverse lessons should be applied and disseminated.

a consequence, AAR meetings create a very honest and critical environment well before they begin."

The reference to AAR *meetings*—plural—is important. While a corporate team might conduct one AAR meeting at the end of a six-month project, OPFOR holds dozens of AARs at different levels in a single week. Each unit holds an AAR meeting immediately after each significant phase of an action. If time is short, such meetings may be no more than ten-minute huddles around the hood of a Humvee.

It is common for OPFOR's AARs to be facilitated by the unit leader's executive officer. Virtually all formal AAR meetings begin with a reiteration of the house rules, even if everyone present has already heard them a hundred times: Participate. No thin skins. Leave your stripes at the door. Take notes. Focus on our issues, not the issues of those above us. (The participants' commanders hold their own AARs to address issues at their level.) Absolute candor is critical. To promote a sense of safety, senior leaders stay focused on improving performance, not on placing blame, and are the first to acknowledge their own mistakes.

The AAR leader next launches into a comparison of intended and actual results. She repeats the mission, intent, and expected end state; she then describes the actual end state, along with a brief review of events and any metrics relevant to the objective. For example, if the unit had anticipated that equipment maintenance or logistics would be a challenge, what resources (mines, wire, ammo, vehicles) were functioning and available?

The AAR meeting addresses four questions: What were our intended results? What were our actual results? What caused our results? And what will we sustain or improve? For example:

SUSTAIN: *"Continual radio commo checks ensured we could talk with everyone. That became important when BLUFOR took a different route and we needed to reposition many of our forces."*

SUSTAIN: *"We chose good battle positions. That made it easier to identify friends and foes in infantry."*

IMPROVE: *"When fighting infantry units, we need to keep better track of the situation so we can attack the infantry before they dismount."*

IMPROVE: *"How we track infantry. We look for trucks, but we need to look for dismounted soldiers and understand how they'll try to deceive us."*

One objective of the AAR, of course, is to determine what worked and what didn't, to help OPFOR refine its ability to predict what will work and what won't in the future. How well did the unit assess its challenges? Were there difficulties it hadn't foreseen? Problems that never materialized? Yes, it is important to correct *things;* but it is more important to correct *thinking.* (OPFOR has determined that flawed assumptions are the most common cause of flawed execution.) Technical corrections affect only the problem that is fixed. A thought-process correction—that is to say, learning—affects the unit's ability to plan, adapt, and succeed in future battles.

**OPFOR treats every action as an opportunity for learning—about what to do but also, more important, about how to think.**

## More Than a Report

At most civilian organizations we studied, teams view the AAR chiefly as a tool for capturing lessons and disseminating them to other teams. Companies that treat AARs this way sometimes even translate the acronym as after-action report instead of after-action review, suggesting that the objective is to create a document intended for other audiences. Lacking a personal stake, team members may participate only because they've been told to or out of loyalty to the company. Members don't expect to learn something useful themselves, so usually they don't.

OPFOR's AARs, by contrast, focus on improving a unit's own learning and, as a result, its own performance. A unit may generate a lesson during the AAR process, but by OPFOR's definition, it won't have learned that lesson until its members have changed their behavior in response. Furthermore, soldiers need to see that it actually works. OPFOR's leaders know most lessons that surface during the first go-round are incomplete or plain wrong, representing what the unit thinks should work and not what really does work. They understand that it takes multiple iterations to produce dynamic solutions that will stand up under any conditions.

For example, in one fight against a small, agile infantry unit, OPFOR had to protect a cave complex containing a large store of munitions. BLUFOR's infantry chose the attack route least anticipated by OPFOR's commanders. Because scouts were slow to observe and communicate the change in BLUFOR's movements, OPFOR was unable to prevent an attack that broke through its defense perimeter. OPFOR was forced to hastily reposition its reserve and forward units. Much of its firepower didn't reach the crucial battle or arrived too late to affect the outcome.

OPFOR's unit leaders knew they could extract many different lessons from this situation. "To fight an agile infantry unit, we must locate and attack infantry before soldiers can leave their trucks" was the first and most basic. But they also knew that that insight was not enough to ensure future success. For example, scouts would have to figure out how to choose patrol routes and observation positions so as to quickly and accurately locate BLUFOR's infantry before it breached the defense. Then staffers would need to determine how to use information from observation points to plan effective artillery missions—in the dark, against a moving target. The next challenge would be to test their assumptions to see first, if they could locate and target infantry sooner; and second, what difference that ability would make to them achieving their mission.

OPFOR's need to test theories is another reason the brigade conducts frequent brief AARs instead of one large wrap-up. The sooner a unit identifies targeting infantry as a skill it must develop, the more opportunities it has to try out different assumptions and strategies during a rotation and the less likely those lessons are to grow stale. So units design numerous small experiments—short cycles of "plan, prepare, execute, AAR"—within longer campaigns. That allows them to validate lessons for their own use and to ensure that the lessons they share with other teams are "complete"—meaning they can be applied in a variety of future situations. More important, soldiers see their performance improve as they apply those lessons, which sustains the learning culture.

Not all OPFOR experiments involve correcting what went wrong. Many involve seeing if what went right will continue to go right under different circumstances. So, for example, if OPFOR has validated the techniques it used to complete a mission, it might try the same mission at night or against an enemy armed with cutting-edge surveillance technology. A consulting-firm ad displays Tiger Woods squinting through the rain to complete a shot and the headline: "Conditions change. Results shouldn't." That could be OPFOR's motto.

In fact, rather than writing off extreme situations as onetime exceptions, OPFOR embraces them as learning opportunities. OPFOR's leaders relish facing an unusual enemy or situation because it allows them to build their repertoire. "It's a chance to measure just how good we are, as opposed to how good we think we are," explained one OPFOR commander. Such an attitude might seem antithetical to companies that can't imagine purposely handicapping themselves in any endeavor. But OPFOR knows that the more challenging the game, the stronger and more agile a competitor it will become.

## More Than a Postmortem

Corporate AARs are often convened around failed projects. The patient is pronounced dead, and everyone weighs in on the mistakes that contributed to his demise. The word "accountability" comes up a lot—generally it means

"blame," which participants expend considerable energy trying to avoid. There is a sense of finality to these sessions. The team is putting a bad experience behind it.

"Accountability" comes up a lot during OPFOR's AARs as well, but in that context it is forward-looking rather than backward-looking. Units are accountable for learning their own lessons. And OPFOR's leaders are accountable for taking lessons from one situation and applying them to others—for forging explicit links between past experience and future performance.

At the end of an AAR meeting, the senior commander stands and offers his own assessment of the day's major lessons and how they relate to what was learned and validated during earlier actions. He also identifies the two or three lessons he expects will prove most relevant to the next battle or rotation. If the units focus on more than a few lessons at a time, they risk becoming overwhelmed. If they focus on lessons unlikely to be applied until far in the future, soldiers might forget.

At the meeting following the infantry battle described earlier, for example, the senior commander summed up this way: "To me, this set of battles was a good rehearsal for something we'll see writ large in a few weeks. We really do need to take lessons from these fights, realizing that we'll have a far more mobile attack unit. Deception will be an issue. Multiple routes will be an issue. Our job is to figure out common targets. We need to rethink how to track movement. How many scouts do we need in close to the objective area to see soldiers? They will be extremely well-equipped. So one thing I'm challenging everyone to do is to be prepared to discard your norms next month. It's time to sit down and talk with your sergeants about how you fight a unit with a well-trained infantry."

Immediately after the AAR meeting breaks up, commanders gather their units to conduct their own AARs. Each group applies lessons from these AAR meetings to plan its future actions—for example, repositioning scouts to better track infantry movements in the next battle.

OPFOR also makes its lessons available to BLUFOR: The groups' commanders meet before rotations, and OPFOR's commander allows himself to be "captured" by BLUFOR at the conclusion of battles in order to attend its AARs. At those meetings, the OPFOR commander explains his brigade's planning assumptions and tactics and answers his opponents' questions.

Beyond those conferences with BLUFOR, formally spreading lessons to other units for later application—the chief focus of many corporate AARs—is not in OPFOR's job description. The U.S. Army uses formal knowledge systems to capture and disseminate important lessons to large, dispersed audiences, and the National Training Center contributes indirectly to those. (See the sidebar "Doctrine and Tactics.") Informal knowledge sharing among peers, however, is very common. OPFOR's leaders, for example, use e-mail and the Internet to stay in touch with leaders on combat duty. The OPFOR team shares freshly hatched insights and tactics with officers in Afghanistan and Iraq; those officers, in turn, describe new and unexpected situations cropping up in real battles. And, of course, OPFOR's leaders don't stay out in the Mojave Desert forever. Every year as part of the Army's regular rotation, one-third move to other units, which they seed with OPFOR-spawned thinking. Departing leaders leave behind "continuity folders" full of lessons and AAR notes for their successors.

In an environment where conditions change constantly, knowledge is always a work in progress. So creating, collecting, and sharing knowledge are the responsibility of the people who can apply it. Knowledge is not a staff function.

## The Corporate Version

It would be impractical for companies to adopt OPFOR's processes in their entirety. Still, many would benefit from making their own after-action reviews more like OPFOR's. The business landscape, after all, is competitive, protean, and often dangerous. An organization that doesn't merely extract lessons from experience but actually learns them can adapt more quickly and effectively than its rivals. And it is less likely to repeat the kinds of errors that gnaw away at stakeholder value.

Most of the practices we've described can be customized for corporate environments. Simpler forms of operational orders and brief backs, for example, can ensure that a project is seen the same way by everyone on the team and that each member understands his or her role in it. A corporate version, called a before-action review (BAR), requires teams to answer four questions before embarking on an important action: What are our intended results

**Instead of producing static "knowledge assets" to file away in a management report or repository, OPFOR's AARs generate raw material that the brigade feeds back into the execution cycle.**

and measures? What challenges can we anticipate? What have we or others learned from similar situations? What will make us successful this time? The responses to those questions align the team's objectives and set the stage for an effective AAR meeting following the action. In addition, breaking projects into smaller chunks, bookended by short BAR and AAR meetings conducted in task-focused groups, establishes feedback loops that can help a project team maximize performance and develop a learning culture over time.

Every organization, every team, and every project will likely require different levels of preparation, execution, and review. However, we have distilled some best practices from the few companies we studied that use AARs well. For example, leaders should phase in an AAR regimen, beginning with the most important and complex work their business units perform. Teams should commit to holding short BAR and AAR meetings as they go, keeping things simple at first and developing the process slowly—adding rehearsals, knowledge-sharing activities and systems, richer metrics, and other features dictated by the particular practice.

While companies will differ on the specifics they adopt, four fundamentals of the OPFOR process are mandatory. Lessons must first and foremost benefit the team that extracts them. The AAR process must start at the beginning of the activity. Lessons must link explicitly to future actions. And leaders must hold everyone, especially themselves, accountable for learning.

By creating tight feedback cycles between thinking and action, AARs build an organization's ability to succeed in a variety of conditions. Former BLUFOR brigades that are now deploying to the Middle East take with them not just a set of lessons but also a refresher course on how to draw new lessons from situations for which they did not train—situations they may not even have imagined. In a fast-changing environment, the capacity to learn lessons is more valuable than any individual lesson learned. That capacity is what companies can gain by studying OPFOR.

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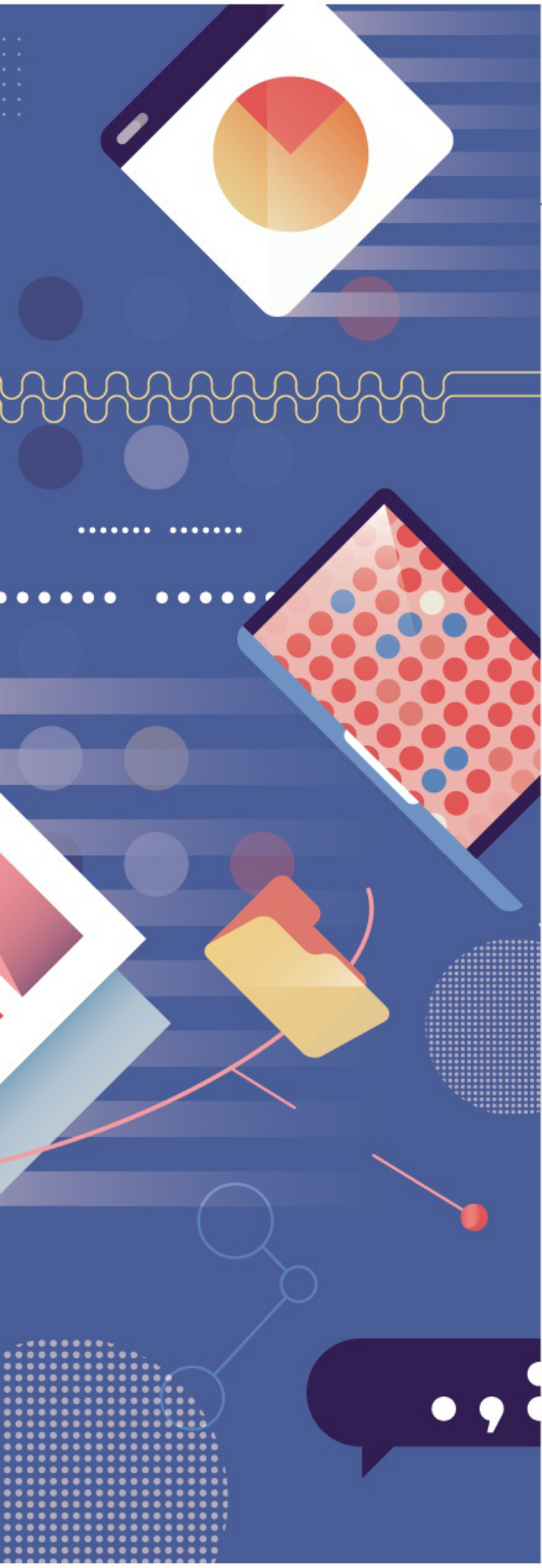

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# When to Put the Brakes on Learning

Learning-focused management teams can actually depress company performance.

→ by J. STUART BUNDERSON and KATHLEEN M. SUTCLIFFE

HOW MUCH SHOULD management teams focus on learning—on the business of developing skills, finding best practices, and seeking new ideas and challenges?

Consider the distinct learning cultures of two business-unit management teams we studied at a *Fortune* 100 consumer products company. Members of the red team embraced change and continuous learning, constantly reevaluating and modifying their unit's business practices. Those on the green team, meanwhile, took a different tack: Approaching their work with an if-it-ain't-broke-don't-fix-it attitude, they focused on leveraging past successes and refining current processes.

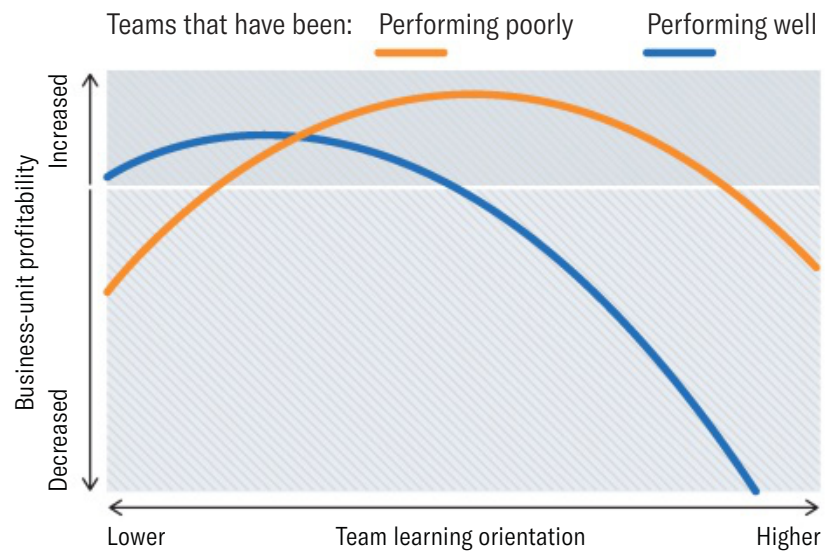
At the end of the year, which team met its profitability targets and received big bonuses and congratulations from the area office? Both did. At first blush, that's a surprising finding. Most executives would predict that a team clinging to the tried and true is doomed to stagnate. And by the same token most would believe that learning drives performance and confers competitive advantage.

But a decade of research on how and why teams attempt to learn, and what happens when they do, suggests that more isn't always better. As the red and green teams' experiences show, two teams at opposite ends of the learning spectrum can reach similar levels of performance. Moreover, management theory and simulations of organizational learning suggest that too great an emphasis on learning can actually hurt performance. An overemphasis on learning and experimentation, for instance, may distract teams from their real goals or induce them to abandon adequate solutions in favor of untried approaches.

*Illustration by* FERNANDO VOLKEN TOGNI

## Getting Team Learning Right

Too much emphasis on learning can compromise any team's performance. But compared with high-performing teams, those that have been doing poorly gain more—and lose less—from ramped up learning efforts.




If that's so, it has important implications that may affect how companies balance team-learning efforts against staying the course.

To examine these problems, we divided the business units from our consumer products company into high, medium, and low performers. We measured performance according to the units' profitability relative to plan over the preceding two years. Next, we randomly selected 15 management teams from each performance level for study—45 in all. Teams were composed of a general manager and a plant manager, as well as managers for marketing, regional sales, finance, equipment, human resources, and administration. Through surveys and interviews, we assessed each team's learning orientation—how much members felt that the team emphasized learning, developing skills, seeking challenges, and taking risks.

By comparing a team's learning orientation with its subsequent unit performance, we were able to show that there was an optimal point beyond which more emphasis on learning actually depressed performance. Where this point fell for a given team depended on that team's recent performance history: As we had suspected, poorly performing teams benefited more from an emphasis on learning than better-performing teams did (see the exhibit "Getting Team Learning Right").

### If It Ain't Broke, Tweak It

It might be hard to give up the idea that a greater emphasis on learning is better. But our data clearly suggest that managers—and their companies—would be best served by identifying the appropriate level of learning for their teams. Here are some rules of thumb.

First, although managers should avoid aggressively "fixing" a team that's not broken, they should never stop tweaking. As the graph shows, even the highest-performing teams in our study improved when they placed a low-to-moderate emphasis on learning—that is, when they tweaked their success formula. But when these high-performing teams overemphasized learning—when their tweaking turned into fundamental rethinking—their performance rapidly declined.

Second, if a team is performing poorly relative to its peers, managers have everything to gain and nothing to lose by increasing the emphasis on learning. The low-performing teams in our study improved most when they placed a moderate-to-high emphasis on learning.

Finally, team leaders must actively set the learning tone for their team. Their challenge is to balance the benefits of experimentation, innovation, and renewal with the need for stability and efficiency. Team leaders must identify the point of diminishing, and then negative, returns on learning and ratchet back a team's learning efforts accordingly to sustain the highest performance.

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# Quick Takes

## 1. When Companies Should Invest in Training Their Employees—and When They Shouldn't

→ by RON CARUCCI

ACCORDING TO ONE industry report, U.S. companies spent more than $90 billion on training and development activities in 2017, a year-over-year increase of 32.5%. While many experts emphasize the importance and benefits of employee development—a more competitive workforce, increased employee retention, and higher employee engagement—critics point to a painful lack of results from these investments. Ultimately, there is truth in both perspectives. Training is useful at times but often fails, especially when it is used to address problems it can't actually solve.

Many well-intended leaders view training as a panacea to obvious learning opportunities or behavioral problems. For example, several months ago, a global financial services company asked me to design a workshop to help employees be less bureaucratic and more entrepreneurial. The company's goal was to train people to stop waiting around for their bosses' approval and instead feel empowered to make decisions on their own. They hoped the outcome would be faster decision making. Although the company seemed eager to invest, a training program was not the right way to introduce the new behavior they wanted their employees to learn.

Training can be a powerful medium when there is proof that the root cause of the learning need is an undeveloped skill or a knowledge deficit. For those situations, a well-designed program with customized content, relevant case material, skill-building practice, and a final measurement of skill acquisition works great. But, in the case of this organization, a lack of skills had little to do with their problem. After asking leaders in the organization why they felt the need for training, we discovered the root causes of their problem had more to do with:

- Ineffective decision-making processes that failed to clarify which leaders and groups owned which decisions
- Narrowly distributed authority, concentrated at the top of the organization
- No measurable expectations that employees make decisions
- No technologies to quickly move information to those who needed it to make decisions

Given these systemic issues, it's unlikely a training program would have had a productive or sustainable outcome. Worse, it could have backfired, making management look out of touch.

PHOTODISC/GETTY IMAGES

**A training will yield its intended benefits if the organization is willing to address the causes of the problem.**

Learning is a consequence of thinking, not teaching. It happens when people reflect on and choose a new behavior. But if the work environment doesn't support that behavior, well-trained employees won't make a difference. Here are three conditions needed to ensure that a training solution sticks:

**Internal systems support the newly desired behavior.** Spotting unwanted behavior is certainly a clue that something needs to change. But the origins of that unwanted behavior may not be a lack of skill. Individual behaviors in an organization are influenced by many factors, such as how clearly managers establish, communicate, and stick to priorities; what the culture values and reinforces; how performance is measured and rewarded; or the number of hierarchy levels. These all play a role in shaping employee behaviors. In the case above, people weren't behaving in a disempowered way because they didn't know better. The company's decision-making processes prevented them from behaving any other way. Even tactical decisions required multiple levels of approval. Access to basic information was limited to high-ranking managers. The culture reinforced asking permission for everything. Unless those issues were addressed, a workshop would prove useless.

**There is commitment to change.** Any thorough organizational assessment will not only define the skills employees need to develop but also reveal the conditions required to reinforce and sustain those skills after a training solution is implemented. Just because an organization recognizes the factors driving unwanted behavior doesn't mean it's open to changing them. When I raised the obvious concerns with the organization above, I got the classic response: "Yes, yes, of course we know those issues aren't helping, but we think if we can get the workshop going, we'll build momentum and then get to those later." This is usually code for "It's never going to happen." If an organization isn't willing to address the causes of a problem, a training will not yield its intended benefit.

**The training solution directly serves strategic priorities.** When an organization deploys a new strategy—like launching a new market or product—training can play a critical role in equipping people with the skills and knowledge they need to help that strategy succeed. But when a training initiative has no discernible purpose or end goal, the risk of failure increases. For example, one of my clients rolled out a companywide mindfulness workshop. When I asked a few employees what they thought, they said, "It was interesting. At least it got me two hours away from my cubicle." When I asked the sponsoring executive to explain her thought process behind the training, she said, "Our employee engagement data indicated our people are feeling stressed and overworked, so I thought it would be a nice perk to help them focus and reduce tension." But when I asked her what was causing the stress, her answer was less definitive: "I don't really know, but most of the negative data came from Millennials and they complain about being overworked. Plus, they like this kind of stuff."

She believed her training solution had strategic relevance because it linked to a vital employee metric. But evaluations indicated that, though employees found the training interesting, it didn't actually reduce their stress. There are a myriad of reasons the workload could have been causing employees stress. Despite her good intentions, this manager's energy would have been better directed at trying to determine those reasons in her specific department and addressing them accordingly.

If you are going to invest millions of dollars into company training, be confident it is addressing a strategic learning need. Furthermore, be sure your organization can and will sustain new skills and knowledge by determining the broader factors that may threaten their success. If you aren't confident in these conditions, don't spend the money.

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# 2. How Companies Can Profit from a "Growth Mindset"

Stanford's Carol Dweck explores how a key psychological concept applies to organizations, too.

→ by *HARVARD BUSINESS REVIEW* STAFF

WHEN CAROL DWECK was a graduate student, in the early 1970s, she began studying how children cope with failure—and she quickly realized that "cope" was the wrong word. "Some didn't just cope—they relished it," she says. "For some people, failure is the end of the world—but for others, it's this exciting new opportunity." Dweck, now a psychology professor at Stanford, spent the next several decades studying this dichotomy, which she originally described using the clunky academic monikers "fixed mindset entity theory" and "incremental theory." By the early 2000s, while writing a mass-market book on the topic, she'd come up with more-appealing labels. She now refers to people who view talent as a quality they either possess or lack as having a "fixed mindset." People with a "growth mindset," in contrast, enjoy challenges, strive to learn, and consistently see potential to develop new skills. Dweck's framework has had a significant impact: Her book *Mindset,* published in 2006, has sold more than 800,000 copies, and the concept of a growth mindset has come to permeate fields such as education and sports training.

Now Dweck is extending her work on mindset beyond individuals—and the extension has important implications for managers. Can an organization, like an individual, have a fixed or a growth mindset? If so, what are the effects on the organization and its employees? Since 2010 Dweck and three colleagues—Mary Murphy, Jennifer Chatman, and Laura Kray—have collaborated with the consulting firm Senn Delaney to answer those questions.

To explore company mindsets, the researchers asked a diverse sample of employees at seven *Fortune* 1000 companies about the extent to which they agreed with various statements—for example, "When it comes to being successful, this company seems to believe that people have a certain amount of talent, and they really can't do much to change it." High levels of agreement suggested that the organization had a predominantly fixed mindset; low levels suggested a growth mindset. The researchers then conducted surveys to try to understand how the prevailing organizational mindset influenced workers' satisfaction, perceptions of the organizational culture, levels of collaboration, innovation, and ethical behavior, and how it affected supervisors' views of employees.

"In broad strokes, we learned that in each company, there was a real consensus about the mindset," Dweck says. "We also learned that a whole constellation of characteristics went with each mindset." For instance, employees at companies with a fixed mindset often said that just a small handful of "star" workers were highly valued. The employees who reported this were less committed than employees at growth-mindset

DAVID CROCKETT/GETTY IMAGES

**Growth-mindset firms have happier employees and a more innovative, risk-taking culture.**

EMPLOYEES IN A "GROWTH MINDSET" COMPANY ARE

**47%**
likelier to say that their colleagues are trustworthy

**34%**
likelier to feel a strong sense of ownership and commitment to the company

**65%**
likelier to say that the company supports risk taking

**49%**
likelier to say that the company fosters innovation

companies and didn't think the company had their back. They worried about failing and so pursued fewer innovative projects. They regularly kept secrets, cut corners, and cheated to try to get ahead.

Supervisors in growth-mindset companies expressed significantly more positive views about their employees than supervisors in fixed-mindset companies, rating them as more innovative, collaborative, and committed to learning and growing. They were more likely to say that their employees had management potential.

Dweck's team hasn't yet looked at whether growth-mindset organizations actually perform better, as measured by financial returns and other metrics. "That's our burning question," she says. But the findings so far suggest that at a minimum, growth-mindset firms have happier employees and a more innovative, risk-taking culture.

How can managers help organizations embrace a growth mindset? "It takes dedication and hard work," Dweck says. Often top management must drive the change; for instance, a new CEO might focus on maximizing employees' potential. Dweck points to GE's Jack Welch as an emblematic growth-mindset CEO: He hired according to "runway," not pedigree, preferring Big 10 graduates and military veterans to Ivy Leaguers, and spent thousands of hours grooming and coaching employees on his executive team—activities that demonstrate a recognition of people's capacity for growth.

As Welch's example shows, one area in which mindset is especially important is hiring. Growth-mindset organizations are likely to hire from within their ranks, while fixed-mindset organizations reflexively look for outsiders. And whereas fixed-mindset organizations typically emphasize applicants' credentials and past accomplishments, growth-mindset firms value potential, capacity, and a passion for learning. "Focusing on pedigree...is not as effective as looking for people who love challenges, who want to grow, and who want to collaborate," Dweck says. Google appears to be making such a shift, she notes; the company has recently begun hiring more people who lack college degrees but have proved that they are capable independent learners.

Despite the survey results, not all employees will be happier in growth-mindset organizations, Dweck acknowledges. For example, people who believe they are more talented than others may prefer an organization with a "star" system, where their talent will be better recognized (and compensated). In general, though, the early evidence suggests that organizations focused on employees' capacity for growth will experience significant advantages.

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**HBR.ORG** To hear Carol Dweck discuss her work on individuals and growth mindset, visit the IdeaCast "The Right Mindset for Success."

# Teams That Learn

## Speeding Up Team Learning

Amy Edmondson, Richard Bohmer, and Gary Pisano | page 46

Cardiac surgery is one of medicine's modern miracles. In the operating room, a patient is rendered functionally dead while a surgical team repairs or replaces damaged arteries or valves. Each operation requires incredible teamwork—a single error can have disastrous consequences. In other words, surgical teams are not all that different from the cross-functional teams that have become crucial to business success.

The challenge of team management these days is not simply to execute existing processes efficiently. It's to implement new processes—as quickly as possible. But adopting new technologies or new business processes is highly disruptive, regardless of industry. The authors studied how surgical teams at 16 major medical centers implemented a difficult new procedure for performing cardiac surgery. The setting was ideal for rigorously focusing on how teams learn and why some learn faster than others.

The authors found that 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. They were designed for learning; their leaders framed the challenge so that team members were highly motivated to learn; and an environment of psychological safety fostered communication and innovation.

The finding that teams learn more quickly if they are explicitly managed for learning poses a challenge in many areas of business. Team leaders in business tend to be chosen more for their technical expertise than for their management skills. Team leaders need to become adept at creating learning environments, and senior managers need to look beyond technical competence and identify leaders who can motivate and manage teams of disparate specialists.

**HBR Reprint** R0109J

## The Best Leaders Are Great Teachers

Sydney Finkelstein | page 54

What sets exceptional business leaders apart? One thing, says Sydney Finkelstein, is their ongoing commitment to giving direct reports one-on-one instruction. Finkelstein, a management professor at Dartmouth's Tuck School of Business, has studied world-class leaders for more than a decade. He's found that they make a point of personally imparting memorable lessons that fall into three categories: pointers on professionalism, technical knowledge and skills, and broader life lessons.

Finkelstein notes that *when* and *where* top leaders teach is almost as important as *what* they teach. Instead of waiting for formal reviews, great managers stay accessible to their employees and share their wisdom as opportune moments arise, whether that's in the office or outside it. They also create teaching moments—often by taking protégés off-site.

How do they make lessons stick? Their techniques include (1) customizing instruction to the needs, personality, and development path of each individual, (2) asking pertinent questions to deepen learning, and (3) modeling the behavior they want others to practice. Finkelstein discusses numerous superstar leaders who are revered as great teachers and suggests that if you follow their example, you can strengthen your staff and drive superior business performance.

**HBR Reprint** R1801M


Harvard Business Review

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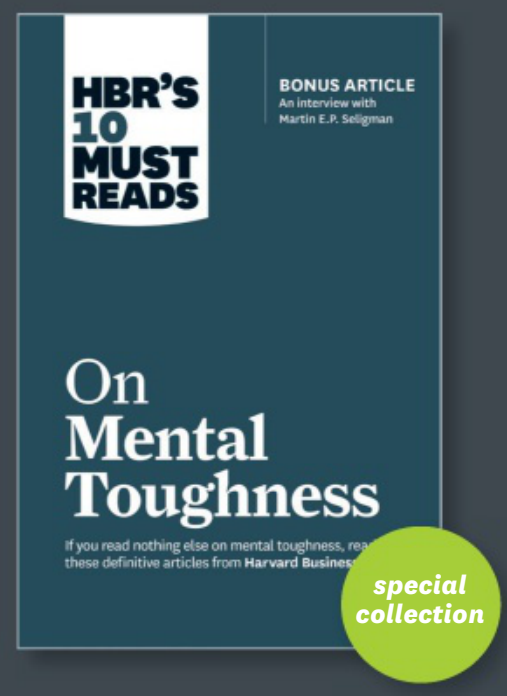


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# Executive Summaries

## Teaching Smart People How to Learn

Chris Argyris | page 60

Failure forces you to reflect on your assumptions and inferences—which is why an organization's smartest and most successful employees are often such poor learners: They haven't had the opportunity for introspection that failure affords. So when they do fail—or merely underperform—they can be surprisingly defensive. Instead of critically examining their own behavior, they cast blame outward, on anyone or anything they can.

In this classic article from 1991, Chris Argyris of Harvard University, known as a thought-leader in organizational development, explains why well-educated, high-achieving professionals often struggle with learning, adding that if learning is to occur, managers and employees must reflect critically on their own behavior, identify how they might inadvertently contribute to the organization's problems, and then change how they act.

This mode of thinking is distinct from simple problem solving, and it takes practice. Problem solving is an example of *single-loop learning*: You identify an error and apply a particular remedy to correct it. But genuine learning involves an extra step, in which you reflect on your assumptions and test the validity of your hypotheses. Achieving this *double-loop learning* is more than a matter of motivation—you have to reflect on the way you think.

The key to teaching senior managers how to reason productively is connecting the educational process to real business problems. One way is to have participants produce a rudimentary case study, which becomes the focal point of extended analysis. As the group analyzes and reflects on their approaches to the problem, the exercise legitimizes talking about issues they've never been able to address before. And when senior managers are trained in new reasoning skills, they can have a big impact on the performance of the entire organization.

**HBR Reprint** 91301

# The Learning Organization

## Why Organizations Don't Learn

Francesca Gino and Bradley Staats
page 78

For any enterprise to be competitive, continuous learning and improvement are key—but not always easy to achieve. After a decade of research, the authors have concluded that four biases stand in the way: We focus too heavily on success, are too quick to act, try too hard to fit in, and rely too much on experts. Each of these biases raises challenges, but each can be curbed with particular strategies.

A preoccupation with success, for example, leads to an unreasonable fear of failure, a mindset that inhibits risk taking, a focus on past performance rather than potential, and blindness to the role of luck in successes and failures. Managers therefore need to treat mistakes as learning opportunities, recognize and foster workers' capacity for growth, and conduct data-based project reviews.

To counter the bias toward action—and the unthinking perpetual motion and exhaustion that ensue—leaders can schedule more work breaks and make time for reflection. They can redress the tendency to conform, which stifles innovation, by encouraging workers to cultivate their individual strengths and to speak up when they have ideas for improvements. And they can develop and empower their employees to solve problems instead of turning automatically to outside experts.

**HBR Reprint** R1511G

## Is Yours a Learning Organization?

David A. Garvin, Amy C. Edmondson, and Francesca Gino | page 86

An organization with a strong learning culture faces the unpredictable deftly. However, a concrete method for understanding precisely how an institution learns and for identifying specific steps to help it learn better has remained elusive. A survey instrument designed by Harvard Business School professors Garvin, Edmondson, and Gino allows you to ground your efforts in becoming a learning organization.

The tool's conceptual foundation is what the authors call the three building blocks of a learning organization. The first, a supportive learning environment, comprises psychological safety, appreciation of differences, openness to new ideas, and time for reflection. The second, concrete learning processes and practices, includes experimentation, information collection and analysis, and education and training. These two complementary elements are fortified by the final building block: leadership that reinforces learning.

The survey instrument enables a granular examination of all these particulars, scores each of them, and provides a framework for detailed, comparative analysis. You can make comparisons within and among your institution's functional areas, between your organization and others, and against benchmarks that the authors have derived from their surveys of hundreds of executives in many industries.

After discussing how to use their tool, the authors share the insights they acquired as they developed it. Above all, they emphasize the importance of dialogue and diagnosis as you nurture your company and its processes with the aim of becoming a learning organization. The authors' goal—and the purpose of their tool—is to help you paint an honest picture of your firm's learning culture and of the leaders who set its tone.

**HBR Reprint** R0803H

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# Executive Summaries

## The Learning Organization

### Making Business Personal

Robert Kegan, Lisa Lahey, Andy Fleming, and Matthew Miller | page 94

Most people expend a lot of energy at work attempting to hide their inadequacies from colleagues. The authors believe that this is the single biggest cause of wasted resources in nearly every company today. When they went in search of firms where people see their mistakes not as vulnerabilities but as prime opportunities for growth, they found only a handful. Two stood out: Bridgewater Associates, an East Coast investment firm, and the Decurion Corporation, a West Coast real estate manager, cinema operator, and senior living center owner. Both are committed to developing every one of their people by weaving personal growth into daily work—and both are highly successful businesses.

The authors spent hundreds of hours observing their practices and interviewing employees at all levels. What they saw was people working together, in meetings, in one-on-one sessions, and in the course of their everyday work, to get at the root causes of problems and devise more-productive ways of doing things. Many companies conduct root cause analysis but stop short of crossing into an employee's interior world, where so many problems begin—in, for example, a tendency to avoid confrontation, to act before thinking things through, to be overly aggressive if one's ideas are criticized, and other counterproductive thinking and behavior. At Decurion and Bridgewater, everyone from the CEOs on down to the teenage ushers works on identifying and overcoming these patterns as part of doing the job well.

**HBR Reprint** R1404B

### Learning in the Thick of It

Marilyn Darling, Charles Parry, and Joseph Moore | page 102

The U.S. Army's Opposing Force (OPFOR) is a 2,500-member brigade whose job is to help prepare soldiers for combat. Created to be the meanest, toughest foe that soldiers will ever face, OPFOR engages units-in-training in a variety of mock campaigns under a wide range of conditions. Every month, a fresh brigade of more than 4,000 soldiers takes on this standing enemy.

OPFOR, which is stationed in the California desert, always has the home-court advantage. But the force being trained—called BLUFOR—is numerically and technologically superior. It possesses more resources and better, more available data. It is made up of experienced soldiers. And it knows just what to expect, because OPFOR shares its methods from previous campaigns with BLUFOR's commanders. In short, each BLUFOR brigade is given practically every edge. Yet OPFOR almost always wins.

Underlying OPFOR's consistent success is the way it uses the after-action review (AAR), a method for extracting lessons from one event or project and applying them to others. AARs became a popular business tool after Shell Oil began experimenting with them in 1998. Most corporate AARs, however, are faint echoes of the rigorous reviews performed by OPFOR. Companies tend to treat the process as a pro-forma wrap-up, drawing lessons from an action but rarely learning them. OPFOR's AARs, by contrast, generate raw material that is fed back into the execution cycle. And while OPFOR's reviews extract numerous lessons, the brigade does not consider a lesson to be learned until it is successfully applied and validated.

It might not make sense for companies to adopt OPFOR's AAR processes in their entirety, but four fundamentals are mandatory: Lessons must benefit the team that extracts them. The AAR process must start at the beginning of the activity. Lessons must link explicitly to future actions. And leaders must hold everyone, especially themselves, accountable for learning.

**HBR Reprint** R0507G

### When to Put the Brakes on Learning

J. Stuart Bunderson and Kathleen M. Sutcliffe | page 112

Most executives would assume that companies and their teams should embrace continual learning and renewal in order to stay competitive. But more than a decade of research suggests that in fact, paying too much attention to organizational learning can *hurt* performance. An overemphasis on experimentation, for example, may distract teams from their goals and lead them to brush aside satisfactory solutions to problems in favor of untried approaches. Sometimes, it seems, staying the course is the right thing to do.

To investigate this, the authors studied two teams from a *Fortune* 100 consumer products company, assessing each group's emphasis on learning and comparing that against the team's profitability relative to its goal. Their research showed that while too much focus on learning can actually depress performance, teams that are already performing poorly will benefit more from a prolearning culture than will more successful ones.

The data shows that companies and their managers would be best served by identifying the appropriate level of learning for their teams. They can do this in several ways. First, while managers should avoid trying to fix a team that isn't broken, they should never stop tweaking. Even the best-performing teams benefit from a low-to-moderate focus on learning. But for top teams, too much focus on learning and change can result in rapidly declining performance. Second, for poorly performing teams, managers should put a moderate-to-high focus on learning. Finally, managers should set the tone for their teams by balancing the benefits of innovation and experimentation with the need for stability and efficiency—and ratchet back on learning if it could hinder success.

**HBR Reprint** F0302D

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