

# Reflections

The SoL Journal  
on Knowledge, Learning, and Change



FEATURE ARTICLE

Cultivating a Learning  
Economy

Marilyn Darling, David Meador  
& Shawn Patterson

Commentary

Richard T. Pascale

# Cultivating a Learning Economy

## After Action Reviews Generate Ongoing Value for DTE Energy

By Marilyn Darling, David Meador & Shawn Patterson



Marilyn Darling

Crisis often tests the connection between what we say we believe and what we actually do. In August 2003, a massive failure of the North American electricity distribution system left 50 million residents of the United States and Canada without power for as many as two days. For DTE Energy, an active, longtime member of the SoL community, efforts to embed “learning while doing” as a daily

business practice, and years of implementing a bottom-up approach to change, paid off during and after the blackout. The organization’s response to this emergency is a telling example of how DTE employees at all levels are “walking the talk” – bringing collective intelligence to sometimes uncomfortable realities.

— Paul M. Cohen, Senior Editor



David Meador

**W**ithin minutes after the lights went out on August 14 of this year, everyone at DTE Energy, the parent company of Detroit Edison, knew that something big was happening. As calls started coming in to the executive suite from around the region, CEO Tony Earley recalls:

I had a sinking feeling in the pit of my stomach. There was no reason why all of those areas would be out simultaneously on a perfectly clear day.... It was an event that you study in this industry, you have procedures for – but you never think you’re going to use them.

In those few moments, the power grid had failed for 50 million Americans and Canadians. But for DTE, what was interesting about the blackout of 2003 was not its uniqueness – quite the contrary. It’s hard to learn anything useful from an event that is seen as a complete anomaly. However, managers up and down the line at DTE had developed a learning habit that helped them view the blackout not as a freak occurrence, but rather as an extreme test of the company’s capacity to respond to emergencies. Earley describes walking around emergency headquarters later that night:

I must have seen at least five, maybe ten, people holding pads with the heading “AAR Observations” on them. Right in the middle of the crisis, without any prompting. People just assumed there was going to be an AAR. It was great to see.

Earley is referring to the After Action Review, a tool, borrowed from the U.S. Army, that has helped accelerate learning at DTE and several other large companies (see sidebar, “Learning from Experience”). The practice enabled people to ask themselves, even as they



Shawn Patterson

worked to restore power as quickly as possible, how they could respond more effectively to such situations in the future.

Within 24 hours of the blackout, Ron May, senior vice president of distribution and operations, called for a series of After Action Reviews to assess how well DTE had managed excess capacity to restore service, deployed personnel, communicated with the public, and met basic infrastructure needs. Such reviews have become standard practice during emergency responses at DTE, explains Jim Stephanoff, manager of emergency preparedness and response:

People write things down as they occur – the good and the bad – instead of waiting until it’s all over. It gives us a running start on reviewing our performance. What was different from past experiences was how cross-functional our response was to the blackout. We had to bring in linemen from other states to get the power back up quickly. We must have had 120 people show up at our emergency headquarters, and it wasn’t clear to people what they should do next. What we learned from the blackout was that we need a full, cross-functional training exercise to prepare for such large-scale emergencies in the future.

The story of how AARs spread throughout the company offers important lessons to those seeking to cultivate grassroots learning and change. It’s not a tale of calculated initiatives or massive rollouts. Each of the authors was involved in different ways, along with many others, in promoting AARs and other learning practices in DTE.<sup>1</sup> Early on, our efforts were met with doubt or indifference by many in the organization; four years later, AARs have taken root. To describe how this transformation unfolded, we’ll outline our early attempts to institutionalize the practice, the unexpected ways that reality intruded on our plans, the role of senior executives, and the results that emerged. We will conclude by identifying some organizational levers that we believe can accelerate learning and change.

## Learning from Experience

Over 20 years ago, the U.S. Army created the After Action Review as part of a redesign of its training strategy. AARs allow units, from combat platoons up, to adjust their actions on a daily basis, and determine whether each adjustment is getting the intended results.

“After Action Review” is something of a misnomer. Unlike traditional reviews, which are typically done after an event (usually a failed event and usually for the benefit of others), AARs occur throughout the life of a project, focus on ongoing actions, and produce an action plan that the participants themselves can use. Though led by a trained facilitator or the commanding officer, these sessions do not recognize rank. A cultural norm – established over the two decades of the practice and reinforced by a set of ground rules that are repeated at the beginning of every AAR – fosters a safe environment in which participants of any rank can offer candid observations. As practiced by the Army, an AAR typically

- reviews what the unit intended to accomplish,
- establishes the “ground truth” of what actually happened,
- considers what might have caused events to occur as they did,
- allows the unit to articulate lessons to take away, and
- establishes plans and expectations for the next day’s engagement.

AARs took hold as a frontline practice, rather than just a training exercise, during the 1991 Gulf War: Army units saw them as the best way to save lives and accomplish their missions. Since then, AARs have gained currency within a range of companies, including Shell, Harley-Davidson, Disney, J.M. Huber, and Fidelity Investments.<sup>2</sup>



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## Taking First Steps

DTE's long-time involvement in the SoL community helped its executive team appreciate the difference between deep understanding and quick fixes. In June 1999, after a visit to the Center for Army Lessons Learned (the repository for best Army practices), we began introducing AARs as a vehicle for the kind of deep understanding the company was looking for. We were careful about how we presented the practice, emphasizing its use as a safe way to discuss difficult issues. We produced an AAR guidebook, conducted quarterly training, and talked up the tool with managers. DTE's process-improvement group – a small group of internal consultants and trained facilitators – conducted about 25 AARs in 2000.

The process was, and still is, low tech: typically 10 to 15 people, including a facilitator, working together over a flip chart. They list points for team improvement and an action plan for tracking these improvements. Most DTE teams could complete an AAR in about 90 minutes, on average.<sup>3</sup>

However, as with many large-scale change efforts, our “push” was not turning into a “pull.” If we suggested it, frontline teams would half-heartedly agree to run an AAR. But these were seen mostly as one-time events, usually held only after a problem – a storm-related power outage or construction project delay – occurred, and usually done to placate a boss. Only a few natural champions across the company seemed to understand the potential value of this tool. We saw little evidence of the changed behaviors and consistent practices that would produce lasting performance improvement.



## Reality Intrudes

In February 2001, the whole company shifted its attention to completing a merger with Michigan Consolidated Gas. The process-improvement group put its AAR efforts on hold while piecing together the organizations. In early 2002, with the transition settling in, an expanded process-improvement team turned its energies to developing a coherent operating system – a set of principles and tools to be applied, business unit by business unit, to create a “lean” culture in DTE. AARs became part of the Operating System tool set, but were widely ignored.

While the merger diverted attention from this tool, ironically, it also contributed to its ultimate success. This was DTE’s first major merger, and the senior team was eager to learn from it. As the integration of the two companies neared completion, DTE’s executives asked their subordinates to draw lessons from the process. Some who were familiar with the AAR process chose it as an efficient and non-threatening way to respond, and called on the process-improvement group to help them. People understood that they were being asked to conduct AARs to learn, rather than to be blamed. “Everyone wanted to improve,” says

Stephanoff of his managers’ and field crews’ responses to the sessions. “People were quite professional about the process.”

As the merger took hold, requests for AARs started to come in from many areas of the organization. The process-improvement group played the spotter role: facilitating the sessions, but also coaching work teams to transform one-time

***When we first introduced AARs, we made the mistake of wanting to do them “the right way.” When we backed off, teams began to experiment and learn on their own.***

AARs into true, locally owned learning practices – to look to the next similar event and consciously complete the learning cycle by applying lessons learned. The group’s leadership took a hard line on one point – that teams doing conventional post-mortems, which often became finger-pointing sessions, not call them AARs. It was important not to tarnish the intent of the practice.

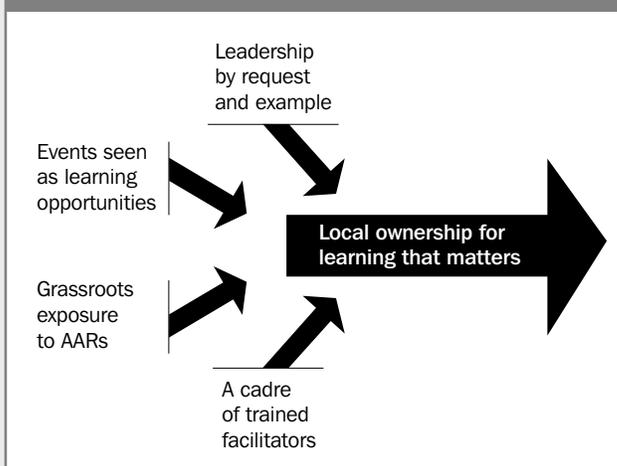
Since early 2002, DTE work teams have conducted hundreds of AARs. As we’ll show, AARs continue to influence work practices throughout the organization. But in hindsight, we see many things that we’d do differently next time. When we first introduced AARs, for instance,

we made the mistake of wanting to do them “the right way.” That made our initial facilitation and communications about the process appear to be too procedural and demanding. When we backed off, teams began to experiment and learn on their own – however imperfectly.

# Sources of Pull in a Learning Economy

We believe managers in many organizations can find levers to build a “learning economy.” However, rather than trying to script a top-down campaign, or wait for bottom-up efforts to pan out, managers, consultants, and other change agents can take steps to cultivate an environment for sustainable learning.

**Figure 1** Five Forces for Change



## 1. Leadership by request and example

Help managers at all levels appreciate the importance of deep learning and ongoing discipline versus one-time events and quick fixes. Encourage them to ask for that level of understanding from subordinates. Help them develop a learning practice that reflects their own priorities and challenges. From our experience, if managers, and especially senior managers, don't have the predilection to sustain the investment in this practice, it may never take root in the organization. DTE's executive committee started with a key event – the merger – and expanded its practice to include other priorities in its work as a team. Notes Tony Earley, “When we actually adopted AARs as a tool at the executive level, it sent a powerful message to the organization.”

## 2. Events seen as learning opportunities

Develop the organization's ability, at senior, middle, and grassroots levels, to recognize day-to-day events, as well as major crises, as opportunities to learn. Help teams link past and current events, so that lessons from the past can be applied to improving current results. From benefits communications to quarterly earnings reporting, to storms, fires, and blackouts, events at DTE have started to take on a second level of importance as a ground for learning.

## 3. Grassroots exposure to AARs

Introduce teams to the tool by demonstrating its ability to provide a safe environment. Help them use it in learning around their own priorities and challenges, but don't mandate its use, and don't insist on perfection. Based on our experience, you can expect that the tool will be misunderstood and misapplied at first. Let teams experiment, and be there to coach them to the next level of insight. For DTE, having the process-improvement group seek out receptive work teams across the organization was a first critical step. Being there to nudge them forward was the second.

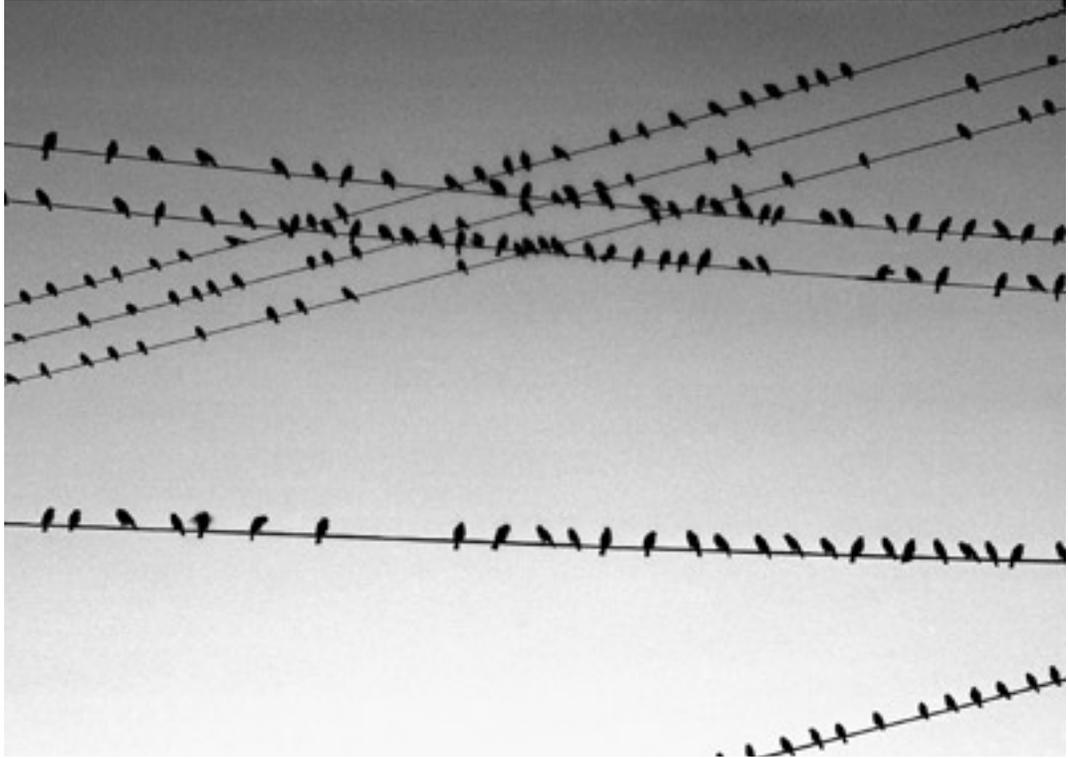
## 4. A cadre of trained facilitators

Develop a core group of process leaders who understand both how to facilitate AARs, and how to help guide teams toward “high yield” applications (tangible return for the investment). For example, DTE's process-improvement group was able to coach outage teams toward a coordinated effort to reduce costly downtime substantially.

## 5. Local ownership for learning that matters

Most departments and teams know what practices they need to improve. A question commonly posed by Signet: “If you could improve performance in one area that would make a significant difference for the enterprise, what would that be?” The answer to this question points teams toward their most natural local learning practice. Thus, the work team becomes the first, best customer for its own learning. This is contrary to the “capture and disseminate” model at the core of most knowledge-management practices. When this practice becomes compelling enough to drive teams to embrace it – when the benefit outweighs the cost – there is little need for a push from above.

As good applications get discovered, nurture them. Track results and use these successes to educate other teams about how and where to use AARs effectively to improve their own performance. Focus on local learning and tangible results – that is what builds excitement and commitment.



Lessons didn't always take hold the way the team leader had hoped. Sessions sometimes lacked structure. Teams didn't always follow through on their insights. But such stumbles gave us openings through which to coach teams on how to improve their practice.

## **Executives Join In**

Shortly after frontline teams began trying out AARs, DTE executives began exploring the practice on their own. In September 2002, Tony Earley called the Executive Committee's (EC's) first series of AARs (facilitated by Darling and her business partner, Charles Parry), focusing on the merger. Says one EC member, "The session was a breakthrough because Tony acknowledged something he'd been criticized for during the merger. A lot of us had thought, 'This will never be discussed in my life.' His willingness to address it head-on legitimized the tool." Lessons taken from that first AAR helped the EC to improve the structure of its deal team and its handling of investment bankers, do more effective due diligence, and better negotiate subsequent transactions. Those sessions raised executives' awareness of the practice at the same time that the grassroots effort was gaining traction. The two camps came together in using AARs, though not by plan.

Another turning point came in November 2002, when Earley called and led his first AAR without outside facilitation. It was prompted by a fire in a substation adjacent to DTE headquarters, which forced a chaotic evacuation of the complex. Earley's informal AAR led to new emergency procedures that later enabled a flawless evacuation during the August 2003 blackout. That AAR was important because it was Earley taking the lead, and because people saw tangible results.

These practices never were mandated, nor built into our formal project management processes. Yet they have taken hold at DTE. How did success happen? Was it merely happenstance, or are there levers that can contribute to the right conditions? We believe that the introduction of the new learning tools, coinciding with events that affected employees' day-to-day work, created what economists call “a double coincidence of wants.” Executives wanted the organization to develop a deeper understanding of, and response to, the forces shaping business change. They did not say how. Teams *chose* AARs as the best response. In the process of responding to that demand, and with gentle nudging and patient facilitation, teams discovered that AARs served local goals as well.

This convergence helped create a “learning economy” around activities that matter, both globally and locally. The benefits of participation outweighed the costs; corporate interest and self-interest coincided. The process shifted AARs from something teams do when things go wrong to something that becomes part of the process of wanting to get better (see sidebar, “Sources of Pull in a Learning Economy”).

## Putting Learning to Work

Today, AAR practices are ongoing across DTE – in major construction projects, customer service activities, planned and unplanned outages, technical training, benefits communications, public safety, and emergency response. In addition to conducting AARs in reviewing merger and acquisition activity (including a \$600-million divestiture of the company’s high-voltage transmission business), the senior executive team regularly uses the tool to prepare for quarterly earnings releases and for board meetings. In each case, the sessions tackle a compelling challenge, grounded in a specific work practice, that facilitates continued learning and performance improvement.

One area in which AARs have had clear impact is the company's handling of planned outages. Like other energy companies, DTE must take plants off-line for a three-to-twelve-week period every three to four years to do maintenance and upgrades. In a given year, DTE will conduct up to six of these shutdowns – ample opportunity to learn from one to the next. The AAR focuses on the planning process, including engineering, outage planning, and plant maintenance and operations.

Doug Dale, the Operating System project lead, explains how AARs are integrated into the planning process, which involves 15 major milestones in the six months leading up to the outage:

After we hit milestones, we get together with process owners and have AARs. It has helped us define what milestones mean and create tools to help meet them. After the outage, we conduct a series of “capstone” AARs to make sure we have fixed the problems that really mattered, as efficiently as possible. I try to encourage outage teams to conduct these capstone AARs by functional discipline. If we use AARs on large-scale operations, they tend to break down. I encourage sub-teams, like supply chain, to bring data. How many parts did we order during the outage versus beforehand? This gives the teams “ground truth” data to see where we planned effectively and where we could improve.

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The result is that DTE continuously upgrades its outage procedures. In the case of one recent outage, work teams were able to bring the unit back up a week ahead of time, at considerable savings. The company is on track to take four to six weeks out of the planned outage schedule, as part of a targeted \$50 million in total operational improvements for 2003.

Each review focuses on specific questions, which might change over time. Storm-response AARs currently focus on public safety: How can DTE best protect the public when wires go down? How should crews be assigned? What is the best way to maintain a cadre of on-call

employees? With each instance, response teams have an opportunity to refine their methods. Though the company has not been tested by a major storm since beginning these reviews, they have led to more than 80 changes in the way public safety teams are managed and deployed.

As for the August blackout, DTE expects to harvest lessons in many areas: how best to use peaker units (power plants that can be brought on line rapidly for extra capacity); how it designs equipment to isolate parts of the system when local failures occur; new methods to match capacity and demand; how to allocate resources to coordinate emergency responses; improved procedures to schedule equipment start-ups; back-up communication plans; and even how to

make sure that field crews get fed when an entire service area is down. However, AARs are not a cure-all: In some cases they have pointed teams to areas that require more extensive root-cause analysis for better understanding of failures.

***AARs have contributed not only to hundreds of operational improvements, but also to one of the company's core values: engaging all employees in organized reflection.***

## **Leadership, Learning, and Accountability**

AARs have contributed not only to hundreds of operational improvements, but also to one of DTE's core values: engaging all employees in organized reflection. As during the blackout, we see people approaching events with the intention of learning from them and improving their own performance. Employees take notes on significant events, and the number and quality of conversations about work practices has increased. Managers, including members of the executive committee, report taking more time to discuss the sometimes-uncomfortable realities of team performance.

AARs are also helping redefine what it means to be a leader at DTE. Earley describes it this way:

People are encouraged to be accountable for their actions and take ownership of them and not be defensive. That's a big step forward because, traditionally, accountability meant that somebody in a senior position is holding someone else's feet to the fire. But some of the most effective accountability comes when people hold themselves accountable. The AAR lets people do that in an environment where they don't feel threatened.

To chief executives who want to instill this kind of learning culture, I'd say, first, you've got to be willing to participate, and you've got to be willing to make yourself vulnerable by being open about where you could improve your own actions. And that is what sends the message that this is really about learning. It's not about assigning blame.

## Endnotes

1. We also introduced *kaizen*, the continuous-improvement process aimed primarily at technical and operational processes, at about the same time as AARs. The dynamics of this introduction – in terms of our attempts to sell the technique and the organizational response to it – closely followed those of the AAR experience.
2. For more on the origin and practice of AARs, see “After Action Reviews: Linking Reflection and Planning in a Learning Practice,” *Reflections*, Vol. 3, No. 2. See also G. Sullivan and M. Harper. *Hope is not a Method: What Business Leaders Can Learn from America’s Army* (Broadway Books, 1997).
3. There is no standard duration for an AAR; times vary widely depending on the issues at hand, the readiness of the team, and the support of the larger organization.

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