
Reviews:

Putting the Learning Organization to Work and Working Smarter Toolkits

Jack M. Ruhl

EXECUTIVE SUMMARY

- These videos are based on the work of David A. Garvin, a professor at Harvard Business School. They come with user guides that are both well written and essential for viewers who are serious about applying the videos' lessons.
- These videos are practical; they can be applied in a business setting almost immediately.
- Each video focuses on one organization, such as Timken, Xerox, L.L. Bean, General Electric, or the U.S. Army.
- In brief, the videos are a bargain. One would be hard pressed to get a consultant as good as this for such a reasonable price.

Most managers have accepted the fact that continuous improvement is essential if an organization is to thrive, so many managers launch continuous improvement programs. Unfortunately, many of these programs fail. But why?

Continuous improvement requires a commitment to learning. Put differently, a firm cannot improve if members of the organization never learn how to improve. In this series of three videotapes, Garvin uses examples of real firms to illustrate the many opportunities to learn. Acting as a consultant to the viewers, Garvin provides concrete ways for organizational learning to occur. He shows how to translate new knowledge into new ways of behaving.

PUTTING THE LEARNING ORGANIZATION TO WORK

Putting the Learning Organization to Work has three parts:

- "Learning Before Doing"
- "Learning While Doing"
- "Learning After Doing"

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“Learning Before Doing”

What do you do when you are the first one in your industry to implement a new process? How can you learn about a new process that no one has ever tried? Learning implies that you can benefit from either your own experiences or from the experiences of others. But the leaders in a particular field do not enjoy that luxury: They must forge ahead without the benefit of experience. Nonetheless, learning can occur before a new process is tried.

Timken Company, a global leader in the bearings industry, was being pressured by customers to reduce the time required to fill customer orders and to make the company's manufacturing process more flexible. Because it took Timken up to 10 months to fill customer orders, there was a real possibility that customers would take their business elsewhere if Timken did not respond to their needs.

The required innovation required a new manufacturing plant, which would cost tens of millions of dollars. The risks were enormous. If Timken built a plant that was larger than it had to be, millions of dollars would be wasted and Timken would have to live with the additional costs of excess capacity for years to come. Yet Timken could not achieve the goals of more flexibility and shorter manufacturing times in its existing plant, which was too small.

As Garvin points out several times in the videos, problems become more manageable when they are broken into parts. Timken's management divided the learning into four stages, with a team assigned to each of the stages.

- **Stage One—The Feasibility Stage.** In the feasibility stage, the team attempted to determine whether the necessary technology would be available when the new plant construction would be completed several years hence. The team determined that the technology would be available.
- **Stage Two—The Concept Stage.** This stage required “thinking out of the box” (i.e., brainstorming or thinking up ideas without having to worry about the feasibility of the proposed solutions). For example, one suggestion to speed product delivery was to build a heliport and purchase a helicopter to deliver the product to customers.
- **Stage Three—The Design Stage.** In this stage, the helicopter idea was rejected as not being financially feasible. It was the design stage team's responsibility not only to reject unattainable solutions but also to identify worktable solutions. The design stage team therefore produced precise specifications for improvement by experimenting with a series of simulations. Timken built a cardboard mock-up of the proposed work cells called Cardboard City, which consisted of boxes of various sizes made to approximate the dimensions of the machines in the work cells. Each box had wheels so that it could be moved around. The idea was to allow enough room for the work cells and to place all machines in optimal locations.

- **Stage Four—The Implementation Stage.** In the Implementation Stage, the lessons learned from the Cardboard City mock-up laid the foundation for the design of the actual manufacturing process. New work cells were slowly brought on line. Timken brought innovations on line in progressive stages, beginning with the simplest, then advancing to the most difficult. This procedure allowed the company to make final adjustments before the full-scale implementation.

To the industry innovator, speed can be disastrous.

By the time the final implementation was complete, the project was hailed as a great success because it produced a plant of an appropriate size that could produce output in the quantities and with the flexibility that customers wanted. The lesson of this video: Move slowly through the four stages and resist the temptation to rush full speed ahead into implementation. Instead, break problems into manageable segments, then assign the different segments to teams that will carefully (and perhaps slowly) work to achieve solutions. To the industry innovator, speed can be disastrous.

“Learning While Doing”

To fully appreciate the value of the “Learning While Doing” video, viewers should recall the last continuing education workshop they attended. Typically, participants simply show up at the appointed place and time and receive materials they need for the day. The materials usually include the fundamentals of the topic being addressed—which might be total quality management (TQM), continuous improvement, process redesign, and so on—and possibly a case that the participants work on during the workshop, whether alone or in a group. Participants might discuss problems their firms are experiencing, though often concerns about confidentiality discourage sharing information such as this. At the typical workshop, in other words, there are usually few concrete links between what is being taught and the challenges participants face on the job.

This video proposes a better way to learn: “Learning While Doing.” It is based on the approach used by multinational General Electric (GE) at its Crotonville, New York, training center. Employees from many different GE locations arrive at the huge Crotonville facility to go through the learning experience in teams. The team members must bring a specific business problem that they will work on during the workshop. The team members are then responsible for solving the problem after they get back home.

Many teams from many different geographic areas converge on Crotonville at any given time, each with its own problem. Thus, there are many opportunities to share “best practices” across teams. Most important, each team learns how to break a problem down into manageable parts, step by step. GE refers to this process as the change acceleration process (CAP). CAP can be used to handle challenges such as quality improvement, process redesign, and problem solving. Among other steps, CAP involves:

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- Creating a shared need
- Shaping a vision
- Mobilizing commitment.

(The user's guide lists the major steps of CAP and also shows another problem-solving process used at Xerox.)

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GE provides a coach to work with the team both at the workshop and later when team members return to their workplace. The coach helps elicit solutions to the problem and acts as a facilitator in the team's breakout sessions. The coach helps create an action plan that will be implemented after the team gets back home, then follows up to ensure that the problem is solved.

The video discusses how CAP has been applied to major problems at General Electric Plastics Japan (GEPJ). A few years ago, after GEPJ had lost money for six years in a row, a GEPJ management team went through the CAP program in Crotonville. As a result, GEPJ soon recorded its first profitable year in six years.

This video is probably the weakest of the three learning videos because it does not provide sufficient detail. For example, although the user's guide provides the seven CAP steps, the video never discusses most of the steps. With regard to the lessons to be learned from GEPJ, viewers are simply told that CAP helped, but details are scarce.

“Learning After Doing”

In an interview many years ago, the actor Marlon Brando commented on the shortcomings of a fellow actor: “The saddest thing is when one makes a series of similar mistakes.” How true. Although this sounds like common sense, both individuals and organizations often fail to take it to heart. In the case of a firm, people fail to learn from their own mistakes, and others in the same organization are never given the opportunity to learn from the mistakes, either.

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This video, which shows how organizational learning can result from both our mistakes and our successes, is explained using a case study from the U.S. Army. The army uses a technique called an after action review (AAR). Put most simply, an AAR teams asks three questions:

- What did we set out to do?
- What did we actually do?
- Why is there a difference?

A project is not considered complete until it has been reviewed.

Each team has a facilitator and a project manager. In the army, the project manager is often the officer in charge of a particular initiative.

There are certain ground rules: Candor is expected, and no one is penalized for the comments he might make. It is not uncommon for foot soldiers to point out the errors made by their commanding officer (while addressing the officer as sir!).

Employee development differs from evaluation in its emphasis on helping employees develop their abilities, thus enabling them to move up the ladder and increase their value to the organization.

Think of a 360-degree review as a circle with the employee in the middle of the circle. Above the employee is the boss; to the left and right are his peers; and below him are employees that report directly to him.

The usefulness of AAR was shown during the army's peacekeeping mission to Haiti. U.S. troops that had served in Haiti for six months were replaced by troops having no knowledge of the region or the culture. But, because of the AARs compiled while the initial troops were in place, the transition went smoothly.

The army realizes the importance of organizational learning and has established the Center for Army Lessons Learned (CALL). CALL has a staff of only 28 that serves the entire army. Even with these limited resources, learning that occurs in one area can be shared with the areas of the world where it is needed most. The point here is that learning after doing can be accomplished in any organization with minimal cost.

THE WORKING SMARTER TOOLKITS

There are three *Working Smarter Toolkits*:

- "Reforming Employee Development"
- "Redesigning Product/Service Development"
- "Redoubling Shop Floor Productivity"

In addition to the video, each toolkit includes a "blueprint" (outlines and forms that take the viewer step-by-step through the topic) and also "worksheets" (booklets that provide step-by-step guidance for applying the ideas described in the video). For example, the blueprint and worksheets for reforming employee development have outlines for each of the seven meetings recommended for this exercise.

"Reforming Employee Development"

More often than not, both bosses and employees dread formal employee evaluations. The boss is often uncomfortable pointing out an employee's shortcomings for fear of embarrassing or antagonizing the employee. The employee does not want to hear negative comments. When a boss criticizes an employee, the employee often becomes defensive and argumentative. The fact that evaluation is often linked to compensation adds to the potential unpleasantness of it all.

This video proposes an approach, employee development, that takes over where traditional employee evaluation leaves off. Employee development differs from evaluation in its emphasis on helping employees develop their abilities, thus enabling them to move up the ladder and increase their value to the organization.

Central to this approach is the "360-degree review." Think of a 360-degree review as a circle with the employee in the middle of the circle. Above the employee is the boss; to the left and right are his peers; and below him are employees that report directly to him (his "direct reports"). For the 360-degree review, a questionnaire is developed that is completed by the employee being evaluated and by three other groups: the employee's boss, the employee's peers, and the employee's direct reports. In this way, feedback comes from three sources, and these multiple measures make the evaluation seem more valid than if it had been done by the boss alone.

There are two additional aspects to the 360-degree review. First, the boss and the employee must identify a small number of skills (six or seven at most) that are critical to the employee's position.

The second important aspect of a 360-degree review is the action plan that results. At the conclusion of the review, several areas for development are identified.

When the results from all three groups are tallied, only the boss and the employee who is being evaluated receive the results. The point is to see where agreement exists and where discrepancies exist among the three groups. For example, an employee being evaluated might indicate on the questionnaire that he works very hard, yet his peers and direct reports may be unaware of his efforts. Armed with this information, the employee might take steps to ensure that others know how hard he is working, which might encourage direct reports and peers to work hard.

There are two additional aspects to the 360-degree review. First, the boss and the employee must identify a small number of skills (six or seven at most) that are critical to the employee's position. For example, a boss might choose "strategic thinking" as a critical skill. If the employee marks "strategic thinking" as relatively unimportant, the boss and the employee need to come to an agreement about the discrepancy.

The second important aspect of a 360-degree review is the action plan that results. At the conclusion of the review, several areas for development are identified. For instance, an employee might be unfamiliar with the firm's competition. To rectify this, the employee's action plan might include trips to trade shows or subscriptions to trade journals.

Garvin illustrates the 360-degree review by allowing viewers to "sit in" on an actual 360-degree review of a manager at Xerox. In the Xerox example, tact on the part of the boss was stressed repeatedly. When the boss sits with the employee, she sits next to the employee on the same side of the table. Words such as "weakness" are never used. The phrase "developmental opportunity" is much less threatening, so there is less of a tendency for employees to become defensive.

In theory, these are great ideas, though one does wonder how well they work in practice, given the hurdles to overcome. For example, Garvin states that the questionnaire may either be developed in-house or a consultant may develop it. At Xerox, a consultant developed the questionnaire. But how many organizations have the resources either to develop a questionnaire or to pay a consultant to do so? And if an organization uses a generic questionnaire, how useful will the results be?

Another question is how important the organizational culture is to the success of a 360-degree review. In the Xerox example, the boss was a highly articulate woman who seemed sensitive to others' feelings. She was working with a subordinate female manager, and the whole process appeared nonthreatening. But would the same results be obtained with a male boss and employee, or in an organization that is more aggressively results oriented? In some organizations, the very idea of managers having sensitive, tactful discussions with subordinates is laughable. One might conclude, therefore, that 360-degree reviews work well only in firms having conducive organizational cultures.

"Redesigning Product/Service Development"

The focus in this video is on L.L. Bean, the manufacturer of outdoor gear. The first portion of the video focuses on the improvement process Bean uses for its well-known hunting boot. The second part shows how Bean uses customers as experts to test Bean's cold-weather gear against similar gear

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manufactured by competitors. The central lesson in both parts of the video is that there is no need to hire a marketing research firm and no need for focus groups. Rather, firms can use their customers as product experts.

The hunting boot has been a mainstay of the Bean product line for decades. Although it is of high quality and sells extremely well, management believes that in future years the company can make small incremental changes to the boot. The question is: What changes should be made? For answers, Bean turns to its customers.

As a first step, Bean sent interviewers to talk to serious hunters. In groups of two, the interviewers travel to where the users work and live. They ask each subject only about five or six open-ended questions about the subject's hunting experiences, any problems the subject may have had with L.L. Bean boots, and any suggestions the subject might have. One customer recounts how he ruined a pair of L.L. Bean hunting boots when brambles tore at the stitching that join the leather uppers with the rubber soles of the boots. Another mentions a squeaking noise his boots made, which obviously put him at a disadvantage when hunting.

After the interviews are complete, the interviewers gather to compare notes. From their many interviews they compile a list of several hundred product requirements, which they write on post-it notes and post on a wall in a central gathering area. Over a period of several days, the team reduces the number of requirements to about 20 requirements, which provide major input for a new prototype boot. Once the prototype boot is available, customer experts test it.

The second portion of the video focuses on Bean's cold-weather gear (e.g., parkas, hats, and gloves) and shows how Bean uses customers to guide the company's efforts to redesign the products. Bean has assembled a group of experienced customer users, including a fishing guide and a member of a ski patrol. After using the products for several months, these users report back. They point out seemingly minor ways that products could be improved. For example, one woman pointed out that the hood of a parka does not come forward far enough.

This approach to continuous improvement makes a lot of sense, and it should provide more useful data than what might be obtained from a focus group. Going to where the customers live and work might also provide higher-quality feedback. Although Bean is a manufacturer, the same approach could also work for service firms.

"Redoubling Shop Floor Productivity"

Allegheny Ludlum is a manufacturer of specialty steel products. Several years ago, the company faced a challenge also experienced by many manufacturers: greatly increased customer demand.

One of Allegheny Ludlum's customers, a maker of high-quality pots and pans, needed steel having certain characteristics and in far greater quantities than in the past. Allegheny Ludlum had manufactured the steel on what the company referred to as the "45 line." The 45 line produced steel with the appropriate qualities, but it was slow, and there was no way to speed it up. Allegheny Ludlum decided to produce the additional product on what was referred to as the "91 line." The

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Raw materials and labor used in the experiment are not counted against a manager's productivity or his line's profitability. Top management at Allegheny Ludlum does not want to penalize a manager who, as they put it, "invests" in an experiment.

question was whether the 91-line steel would have the qualities (particularly the softness) required by the customer.

It did not. Although the 91-line adjustments were set to copy conditions on the old 45 line, the steel came out too hard. The customer had been patient, but the customer's patience was running out, so Allegheny Ludlum had to find a way to produce the steel on the faster 91 line.

The answer, as it turned out, was shop-floor experimentation. A team of line managers and metallurgists suspected that the problem was that the 91 line allowed the steel to cool too rapidly.

They went off line to the company's laboratory, where this suspicion was confirmed. The team then returned to the shop floor, where they ran several more coils to be sure that the lessons learned in the laboratory would transfer to the shop floor.

Top management at Allegheny Ludlum points out that shop floor experimentation is a way of life. Allegheny Ludlum has 20 experiments going on at any given time. Experimentation is not only a way to solve problems but a way to continually improve both the product and the efficiency with which the product is produced.

Managers at Allegheny Ludlum have a standard form to submit to get approval for an experiment. The manager lists the goals of the experiment and how success will be measured, then submits the form for approval. The manager is sure to get buy-in for the experiment from upper management. Most important, resources are provided that do not affect the manager's evaluation. For instance, raw materials and labor used in the experiment are not counted against a manager's productivity or his line's profitability. Top management at Allegheny Ludlum does not want to penalize a manager who, as they put it, "invests" in an experiment.

Viewers of the video might ask what type of firm would embrace shop-floor experimentation. Once again, the culture of the organization seems to be important. Is there an overwhelming drive to improve and to beat the competition? And is top management willing to take some risks? If the answers are positive, experimentation may prove useful.

THE VIDEOS: A GOOD PLACE TO START

Because each video is less than 30 minutes long, Garvin does not have much time for details. Sometimes this is okay, as in the case of the videos "Learning Before Doing" or "Reforming Employee Development." In these videos you feel like you get the main points. For the other films, however, the leader of a change initiative will probably have to do some background reading.

Without question, everyone should read Garvin's *Harvard Business Review* article, "Building a Learning Organization," before viewing the learning videos (July–August 1993, pp. 78–91). With minimal outside reading, the videos provide a good place for managers to learn more about supporting organizational learning and about working smarter.

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