

META - MATTERS

The Value of Learning About Learning

by Jay Cross and Clark Quinn

We are about to say something controversial. Not everyone will buy it. Two groups of college students, one on the East Coast and one on the West, were given the exact same paper and instructed to read it attentively because they'd be tested afterward. There was one difference: the group on the East Coast was told that the information in the paper might not be true. That group ended up scoring significantly higher on the test than the other group. Why? Because uncertainty engages the mind. That's why we told you this material was controversial. With that introduction, you're more likely to remember it.

Think about how this principle of learning could apply to presentations, courses, and other learning events in your organization. Rather than introducing ideas with authoritative assurances, it might be better to say, "This is our current thinking, but there may be a better way." This approach costs nothing to implement, and it might help your employees think more creatively and solve problems more effectively. It's just one example of a technique that might help people become better learners.

Successful businesses strive for continual improvement. They tweak every function in sight—sales, service, logistics, production, finance, communications—with one exception: learning. When any other aspect of the value chain is broken, we fix it. When learning is subpar, most

organizations do nothing. If Olympic athletes approached running the marathon the way businesspeople approach learning, they would show up for the race without having trained. Why haven't businesses helped employees become better learners?

- Businesses are extremely shortsighted. They are the lumberjack who is too busy chopping down trees to stop and sharpen his ax.
- Decision makers have assumed that an individual's ability to learn is fixed. Schooling reinforces the perception that some people are gifted, some are slow, and that's just the way it is.
- Knowledge jobs have replaced factory jobs, but vestiges of the industrial age live on. Frederick Winslow Taylor told the worker, "You're not paid to think," but today, thinking is precisely what we're paying people for.

Learning is a skill, not a hard-wired trait. People can beef up their capacity to learn at any age. You can learn about your learning style and strengths so that you can match what you learn to the format that works best for you, get a coach who intervenes when you've taken yourself off track, or simply learn about how adults learn so that you can ask "How does this relate?" and "Where can I learn more?"

As more and more organizations compete on knowledge and learning, the winners will be those whose employees have

learned how to improve their learning. These employees will benchmark their learning performance. They will reflect and practice. They will become ever better learners. They will learn about learning itself, and in the process they will learn about themselves. We call this



meta-learning, and we believe it's the key to maintaining competitive advantage in the knowledge age. Meta-learning focuses on the process of learning—helping individuals learn how to learn and groups how to create optimal learning environments. The discipline of meta-learning seeks to reinvent learning as a self-correcting, ever improving process. Its measure of success is not effort but business results



Where's the Return?

Most learning experiences come in the wrong containers. How often does one really need the content of a class or workshop? Most likely we're after a few nuggets. Unfortunately, the nuggets are trapped in larger units. Fifty-minute classes and two-day workshops were created for the convenience of the institution, not the learner.

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It's the time-and-motion model of learning, which puts a higher value on efficiency than on effectiveness. The goal of meta-learning is not to stuff in enough padding to fill a class period but to accomplish the learning in the least amount of time.

What would be the benefit if all your knowledge workers learned and solved problems optimally? Let's first think about the college students on the East Coast whose minds were engaged by uncertainty. Maybe applying this technique would boost your organization's learning by only 2 percent, a mere \$40,000 in a \$2 million budget. Remember, though, that it costs nothing. And because uncertainty sparks innovation, the return might be much higher.

Now consider this scenario: Knowledge workers need to read. A conservative estimate is that the average knowledge worker reads ten hours a week, when you consider e-mail, faxes, memos, documentation, briefings, and white papers. Let's say that by offering a course on reading techniques you could improve their reading by 20 percent at the cost of four hours and \$100 per worker. Do the math: that's two hours a week, or roughly 100 hours a year! Now let's ask whether you'd spend \$100 to get 100 hours? You'd be mad not to.

Believe it or not, the same thinking applies to learning and solving problems. It's harder to quantify the time you spend doing these things, but it's evident that the need for such measurement is increasing. Estimates are that the half-life of knowledge is significantly less than the length of an average career, even as short as eight or ten years. Certainly product cycles are decreasing, the pace of technological change is increasing, and the competition is not slowing down. It's obvious that optimiz-

ing your knowledge workers' ability to create, innovate, learn, solve problems, and troubleshoot hits the bottom line in a significant way.

Applied Meta-Learning

The unsurprising consequence of not explicitly teaching learning and thinking is that people never improve the way they learn. Sure, there are those ten percent who succeed no matter what you do to them; your top performers come from this breed. But how can you unleash the rest of your employees to achieve their potential? How do you optimize their learning and doing? The same way you optimize other business processes: you review the process, looking for opportunities to improve it, and then you benchmark against best practices. You do the same thing for learning and problem-solving processes, only they're a little harder to document and examine.

Fortunately, a wide variety of results on learning is available from a wide variety of disciplines. We know a lot about good learning and doing. We also know how to improve skills. For example, research has shown how self-explanation of the steps in a process improves retention, how re-representing a problem facilitates solution, and how individuals process information in different ways. Such things are known but are usually not systematically applied in individual or corporate processes and systems. And schools are notorious for being resistant to the results of research. More important, it's a relatively recent concept to put the teaching of thinking and learning alongside the three Rs; the call for a fourth R, reasoning, has not yet had an effect on your employees.

Learning involves doing something and

then having a framework against which you can compare your performance and see how you did. That's the basis of essentially all formal learning, except that someone usually helps you review your performance. If you had the framework and the time, and a little support in the process, you should be able to teach yourself. While it's hard to be systematic and objective, it can—and should—be done. The ultimate goal is to optimize an individual's ability to *do*. The most efficient way to fulfill that goal is to optimize the individual's ability to learn. In a meta-learning environment, the manager becomes a learning mentor, facilitating individual and group improvement while addressing business goals.

To give one example of a systematic approach to learning to learn, consider the practice of note taking. Many people take notes at meetings. It's a habit you acquire in school, and you reread the notes at least the night before the exam. People continue to take notes after school. Surprisingly, they don't reliably reread the notes. So, the question arises, why do they bother to take notes?

The answer is that taking notes can be a valuable form of processing information, a trick known to increase the likelihood of understanding and remembering material. If the notes are not exact transcriptions but instead are rephrasings or mind maps, or include drawings that capture some of the expressed relationships between ideas, they help cement the experience into memory.

But most people probably haven't explicitly thought about developing such techniques; they haven't thought about learning to learn. It's not what they have

been conditioned to do in the workplace, and it's rarely taught. It has to be deliberately acquired by systematically reviewing one's own learning activities, comparing oneself to best practice, and applying tactics to alter well-practiced but inefficient behaviors. This meta-learning process of review, comparison, and intervention can become habit. It requires effort, but we believe it's the best investment an individual or an organization can make.

The Examined Life

Setting people up to learn how to learn ignites a process of perpetual self-improvement. We've found that once people's consciousness is raised, many of them will become aware of their own learning and take responsibility for improving it. They probably need help destroying myths about what they can't change about themselves and what they can, but after that, enlightened self-interest kicks in.

To foster a learning-to-learn culture, organizations must understand the unique elements that contribute to such a culture. There is a long list of elements against which organizations can be audited. They include valuing and fostering self-improvement, specifically learning. For example, does the organization create, keep, and propagate stories of individuals who have improved their own processes? A central tenet is that there must be models of good learning practices and associated competencies, assessment mechanisms to identify individual strengths, and explicit support to address areas that need improvement. Information and learning systems can be improved by adding learning-to-learn information as content and providing ex-

PLICIT support in the form of event-based reminders (such as meeting performance aids) and time-based improvement elements (such as regular self-review prompts).

Many organizations aim to be better than the competition, but most of them aren't focusing on their greatest resource: people. Organizations must make people—not just business processes—the focus of continual improvement. Nurturing people in this way is intrinsically rewarding, and the outcomes tend to be extrinsically rewarding as well.

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