

Why Organizations Need to Make Learning Hard

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In these days of fast everything (food, internet connections, dating), you can understand why people think lessons should also be easily accessible. Give solutions in bullet points. Let people check their responses to problems immediately. Encourage them to memorize the answers and move on.

Unfortunately, real learning — that is, the kind which embeds knowledge and skills in long-term memory — is never simple. In fact, easy in (little effort to temporarily retain the lesson) typically results in hard out (difficulty in retrieving it when you need it.) Decades of research, most notably by [UCLA's Robert Bjork](#) and his colleagues, have shown several reasons for this apparent paradox.

Both learners and teachers confuse performance during training (termed “retrieval strength”) with long-term retention and the ability to apply the lessons (“storage strength”). Researchers have shown that, in laboratory tests, people quite consistently have “illusions of competence.” That is, they over-estimate their ability to solve future problems when they’ve been given a lot of help during lessons. When shown answers to questions, experiment subjects are likely to think they could have produced them (“Oh, sure, I knew that!”) And the more familiar the material seems to them, the worse the students do in actually using it. Familiarity breeds complacency.

Fortunately, there are a number of proven ways to strengthen mental storage. The best learning and teaching strategies incorporate various forms of what Bjork terms “desirable difficulty.” Some examples: interleaving different tasks and materials instead of focusing on just one for a big block of time; allowing students to make mistakes and learn from them; requiring students to interpret new material in light of what they already know; and using testing as a mode of instruction rather than evaluation.

This research suggests why teaching by [the case method](#) is favored at many institutions, including Harvard Business School. A well-run case-based discussion constantly challenges students. As they are asked to diagnose and debate solutions to a given situation, there is rarely an easy or obvious answer. They must derive their own, which enhances their learning. Teaching also becomes harder, of course. These methods demand creativity and continuous updating to ensure they're grounded in real, current organizational issues, and they take more time. But the experience becomes more fun and fruitful for everyone.

The same strategies can be applied outside of the classroom, in the workplace, where there are even more benefits. When done right, lessons with desirable difficulty convey more than knowledge; they also educate people about organizational culture and provide practice in critical thinking and skills application. Such active learning is important in on-boarding programs, during mergers and acquisitions, and for transferring expertise. For example, my colleagues and I recently used these ideas to help GE's famous Research Centers transfer undocumented knowledge from their retiring top talent to less experienced personnel. Experts have learned their complex, problem-solving, decision-making skills through experience. People who want to learn from them should be made to work just as hard.



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