

Lessons in Learning

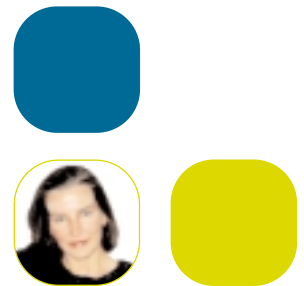
by Jean Gorman (Nayar)

You live and learn as they say. But what and how each person learns is as unique to an individual as his fingerprint. While educators debate the merits of different teaching methods, politicians quarrel over the value of school vouchers, and CEOs and corporate managers ponder the proper tools for training personnel, researchers are breaking new ground about the learning process itself. Just what are they finding? And, perhaps more importantly, how can anyone involved in educating others apply what they're discovering to enhance the learning process in meaningful ways?

Learning is such an integral part of being human that most of us take it for granted. Yet it is so complex that finding clear-cut revelations on the types of curricula, teaching strategies, and environments that can best support it is next to impossible. In any conversation about learning as many questions emerge as answers. When we talk about learning are we discussing behavioral learning, cognitive learning, social learning, emotional learning, or all of these at once? Do children learn differently than adults? How does the environment affect the learning process? And how can we harness our collective learning to create healthy organizations, corporations, and societies?

One way to get a grip on how we learn is to start with a basic foundation, says Ross Thompson, professor of developmental psychology at the University of Nebraska, who points to Swiss psychologist Jean Piaget's, four-stage theory on childhood development as a good road map. According to Thompson, the newest research in this area shows that Piaget, one of the most prominent early 20th-century thinkers on childhood development, and other founders of the field profoundly underestimated how much a child's and even a baby's mind is capable of.

"One of the things that we've learned is that infants develop expectations, are capable of extremely acute observations, and can draw inferences about gravity or cause and effect relations — in other words, elementary



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physics,” Thompson says. In contrast, Piaget believed that infants only understood the world in terms of sensory-motor experience and were incapable of such mental concepts. He also believed that once they passed through this first stage, they moved on to progressively more complex stages of thought, gaining the ability to form mental concepts along with the language skills they acquire as toddlers, to master concrete reasoning as young children, and to think abstractly as adolescents.

Seen from a broader vantage point, experts now regard human development as a more intricate picture. “Piaget thought that the highest level of thinking was logical-mathematical reasoning, and that emotions interfere with high-level thought,” says Sybil Barton, professor emeritus of psychology at Purchase College, SUNY. “He also thought that at a certain point you didn’t have to interact with the environment anymore to learn, but just as a child can be judged for thinking too concretely, there’s also such a thing as being too abstract — when you think about an idea, but can’t apply it to the real world.”



Other of Piaget’s contemporaries, in particular Russian psychologist Lev Vygotsky, developed alternative theories on cognitive development that set the stage for the classic, “nature vs. nurture” debate about learning. In one camp, you have the maturationists, who focus on the unfolding of predetermined hereditary characteristics, and in the other, the behaviorists, who emphasize the environmental and social influences that impact learning. Current thinkers seek to reconcile these polarized points of view through studies that suggest these forces are interrelated.

Susan Saegert, director of the Center for Human Environments at the Graduate Center of City University of New York (CUNY), believes environment affects the behavior of children on many levels. “I’ve studied the effect of overcrowding in the home on children and have found that those who live in overcrowded spaces score lower on tests and have more behavior problems,” she says. “Also, children need to have places carved out for them that they have control over so they can concentrate or have a place to retreat to after a fight, places where they can regulate emotions and the flow of information.”

For adults in the workplace, Saegert says it’s important to view the work environment as a stage set for different activities, noting the environment can be a mechanism for socialization and organization. “The stability and predictability of your environment can help you organize your behavior and the behavior of groups. For certain tasks, the environment can serve as a sort of memory system to support and build intellectual capital,” she says.



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“On the other hand, with the movement toward hoteling, where you have no personal space or equipment, the lack of physical support for mental existence can impoverish a person’s ability for complex, intellectual work.”

So if we are, at least to some extent, products of our environments, then what impact does our cultural context have on the learning process? Anna Stetsenko, head of the developmental psychology Ph.D. program at the graduate center at CUNY, says that beliefs as to what drives development in different cultures can be as deeply rooted as ideological differences. “In the many eastern and northern European countries that have community-oriented cultures, greater emphasis is placed on personal effort and conditions provided by society,” says Stetsenko who was born and raised in Moscow and worked in Germany and Switzerland before coming to the U.S. “In the U.S., the emphasis is often placed on inborn capacities and brain development as the driving forces, which suggests that people will develop according to a pre-given pattern into something ascribed to them by nature,” she explains.

Social norms related to status and authority can also strongly influence the delivery of education in different cultures. “In parts of Asia, where there’s a great respect for people in higher positions of authority in a well-established hierarchy, professors lecture to the students,” says Charles Bezerra, a professor at the University of Pernambuco in Brazil and a researcher and international consultant for Steelcase. “In Brazil, students are more anarchistic, say what they think, keep testing the professor, and keep testing the rules before they follow.”

What happens once we gain the ability for high-level thought? Do adults have untapped potential for even higher stages of learning? In his path-forging book, *The Fifth Discipline: The Art and Practice of the Learning Organization*, Peter Senge, director of the Systems Thinking and Organizational Learning Program at MIT’s Sloan School of Management, suggests that successful “team learning” and “systems thinking” are keys to growth and successful development as adults in the modern world.

With these disciplines, Senge believes we can create vital “learning organizations” that expand and evolve as the world changes. For these types of organizations, he writes, “it is not enough merely to survive. ‘Survival learning’ or what is more often termed ‘adaptive learning’ is important — indeed necessary. But for a learning organization, ‘adaptive learning’ must be joined by ‘generative learning,’ learning that enhances our capacity to create.”

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