

business students worldwide learn about industry and commerce.

In the next few pages, two unconventional educators advocate for fresh approaches to the business school classroom as they call for teaching methods that are anything but traditional.

Education and the Curious Child

BY KAUSTUBH DHARGALKAR

I once saw this phrase on a T-shirt: "We were all creative till education happened to us." That indictment of the modern educational system echoes an observation made by Nobel Laureate Rabindranath Tagore back in 1929, when he described education as an institution that "had its luggage van waiting for branded bales of marketable result."

It's time for a change.

I believe that educators must approach learning as an activity that happens every day, around the clock; I believe that their goal must be, not to disseminate knowledge, but to inspire their students with a thirst for knowledge. Each session should end with students racing out of the classroom to learn more about the day's topic through their own experiments.

I think our students would benefit immensely if business schools took Tagore's viewpoint to heart. Tagore, an outspoken critic of the rote lecture style of education, emphasized that teachers should see the world as a global village populated by curious children eager to fill their empty minds not just with data, but also with wisdom and experiences and the conviction that curiosity pays rich dividends. He recommends two simple yet effective teaching methods: teaching through experimentation, which takes students out of the classroom so they can get firsthand experiences; and active learning, in which educators perform fewer monologues and students engage in more discussions and debates.

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How We Learn

If we are going to encourage our students to truly learn, we first must understand how learning happens. Mitchel Resnick of MIT's Media Lab has described the learning experience as the "imagine-create-play-share-reflect-imagine-create" cycle.

It might be easier to understand if you visualize what happens when you hand a new toy to an 18-month-old toddler. She looks at it from all angles, shakes it, holds it to her ear, bites it, throws it on the floor, digs into it with her fingers, squeezes it, sniffs it. This is curiosity at its best. The child is using all five senses—sight, sound, touch, smell, and taste—to explore the new thing she's been given.

When one of her experiments leads to an outcome—the toy makes a sound—she repeats a few of her actions until she can isolate cause and effect. When she learns that squeezing the toy causes it to squeak, she experiences a *Eureka!*

moment of unbounded glee. She prances around, repeating the act, thrilled anew every time the toy reproduces the desired outcome. When she sees the adult watching, she rushes over to show what the toy can do. In effect, she is sharing the knowledge pool she has created out of her own explorations.

The adult pretends to be awestruck, and this positive reinforcement encourages the child to go back to the toy for the next round of exploration, attempting to make some other meaning out of the same object. Perhaps she finds that it squirts water out when she squeezes it, and she quickly shows that ability to the adult audience as well. She has gotten into an ever-expanding helix of exploring, making meaning, experiencing glee, and sharing.

The adult audience plays a key role in her learning cycle. If, instead of participating approvingly in her triumph, the adult says, "The toy is not supposed to make noise," he kills the child's sense of accomplishment.

This is exactly what our educational system does when it creates an environment where teachers are always right and their views are the only possible interpretations of events. Creative children might answer test questions with their own unique interpretations, but they are likely to receive zero points for the exam or be admonished for fantasizing in class. These repeated snubs cause them to lose interest in the subjects they're studying; they eventually stop learning and begin "aping" what they're told in class or read in books.

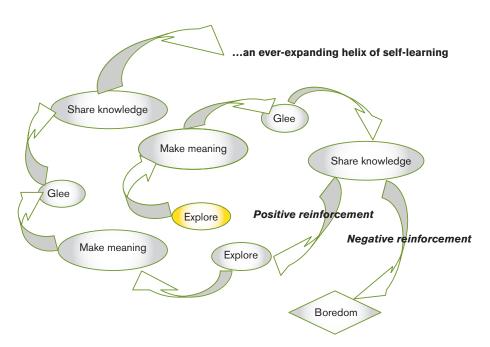
This mimicry is not a path to learning. And it's definitely not a path to the innovation the world requires if we are to solve tomorrow's problems.

A New Approach

I believe business school education must produce graduates who are open-minded and flexible enough to grasp the changes occurring in the world, dip into their knowledge pools, connect the dots across different disciplines, and generate synergistic solutions. If schools want to develop students with creative minds, they need to develop an approach in which individuals:

- Are unafraid of starting from a blank canvas.
- Can see linkages and apply fundamental concepts across seemingly unrelated fields.
- Are willing to experiment continuously and act on the feedback received.
- Can visualize possible scenarios and view the larger picture without the interference of functional silos.
- Can appreciate the needs of various stakeholders.
- Can see models end-to-end, whether they're about consumer experiences or business initiatives.

This approach to problem solving is known as design thinking, which is already being taught at a few business schools (see "Design Think at Innovation U" in the November/December 2007 issue of *BizEd* and "Management Meets Design" in the September/October 2010 issue). Students who learn this iterative, collaborative way of thinking learn to reframe problems and come up with better and more integrated solutions.



When students receive positive reinforcement for their excitement in learning, they will continue to explore and share new knowledge.

Design Thinking in the Classroom

At the Welingkar Institute of Management Development & Research, we teach this way of thinking in our PGDM Business Design & Innovation (post-graduate diploma in management) program. We have structured the course so we deliberately keep students away from functional specializations in marketing, finance, operations, HR, and other conventional MBA disciplines. Instead, we rely on a multidisciplinary approach that encourages them to experiment and learn through the "imagine-create-playshare-reflect-imagine-create" cycle. In fact, we take students through the entire business cycle, from creation to exit, in four key steps:

1. Identifying needs and spotting opportunities. We send students out to do firsthand research in various sectors—such as telecom, banking, insurance, and IT—and to explore the pain points and aspirations of consumers. At the same time, to support students in the discovery process, we teach subjects such as research methodology, ethnography, individuals and society, and applied economics.

We also give students a practical introduction to the basics of marketing, finance, and operations by assigning them to a company to study its operations. Through this module, students acquire a ground-level understanding of what consumers want and how business works in reality.

- 2. Generating concepts. After identifying opportunities in various markets, students pick a sector where they can generate viable business concepts. First they go through a systematic, in-depth, milestone-based sector analysis. Then they study other subjects—including market research, environmental issues, interactive design, accounting, and so on—so they can create viable concepts based on the realities of the sectors they choose.
- 3. Planning for rollout. Students learn everything they need to launch a business: developing a business plan, prototyping, branding, financing, project management, strategic marketing, corporate law and taxation, and operations research. This section also includes a week called "Exploring the Grass Roots," during which students visit rural India to research various aspects of village

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life. They explore communications and banking systems, the healthcare infrastructure, and energy consumption patterns in rural India. These visits make them consider how they can grow their businesses in ways that will be sustainable and also improve village life.

4. Taking the concept to market. In this final module, students create plans for financing, marketing, operating, staffing, and mitigating the risks for their chosen enterprises. They attain the necessary know-how through subjects like innovation management, international business, integrated communication management, advanced prototyping, quality management, and advanced financial management. The module ends with a forum where they display their ideas to a panel of industry experts. Angel investors and venture capitalists also attend, so there is potential for the most promising ideas to receive funding.

Feedback for the Future

Students have responded enthusiastically to this business design and innovation program. According to 2008 student Sunny Gandhi, the course "made me open to new ideas



and thoughts without judging their impact beforehand." Sweety Jain, a student from 2011, said that the class "led to the transformation of my thinking from 'how' to 'why' and 'what,' and from there to a customized approach to solving the pain points of the consumer."

Even more tellingly, 2012 student Sweta Nair commented that the business design course "has been like a reincarnation experience. It taught me to be detached from my own creation, to allow ideas and concepts to evolve and adapt with time and changing requirements. I have learnt that everything in nature is a cycle and hence to consciously plan for the end as we do for its creation."

Lam convinced that the model of business education for the future must move away from a one-way dissemination of facts and figures. It must encourage students to explore, connect the dots, form their own constructs, test them, reconstruct them, and refine them. Only then will graduates defy today's "dominant logic," as C.K. Prahalad referred to cultural norms and beliefs. Only then will they move beyond "functional fixedness," which Karl Duncker defined as a "mental block against using an object in a new way that is required to solve a problem." Only then can students be industry-ready-and only then can we say that our universities are doing their jobs well.

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Teaching With Heart

BY CHIH-LING TSAI

Over the last decade, we have watched powerful businesspeople wreak havoc on the global economy and harm individual investors by making foolish and risky choices. For instance, last year, a rogue trader at IPMorgan Chase lost US\$5.8 billion trading in obscure and complex credit derivatives. As such behavior seems to grow more common, the general public has stopped trusting business and financial institutions to act responsibly. This distrust has tarnished the reputation of business schools—and of graduates who have earned MBA degrees.

My belief is that MBAs could break this destructive cycle if they were taught to be self-reflective instead of being taught only to pursue ever-increasing profits. In today's business school classrooms, teachers overemphasize technical skills instead of modeling personal responsibility and morality. We fret over the minutiae of our curricula, yet fail to consider whether we are helping students become better people. By broadening our approach, we can help MBA graduates earn greater respect for their contributions and their roles in society—not just big paychecks.

Business school faculty must learn to teach with heart, no matter how technical and focused their classes seem to be. At the Graduate School of Management in the University of California at Davis, I teach statistics, a course that many would consider to be without nuance. And yet I use a teaching method that allows me to combine practical knowledge with empathy, morality, creativity, and persistence. I also show students how to draw from empathy and compassion in their roles as leaders.

Anyone can learn this method to teach any topic—and I believe business education will be profoundly improved if more professors teach their courses with heart. This is a call to action.

Putting Your Heart Into It

There are four critical components to my holistic teaching approach: purifying the heart, cooling the heart, warming the heart, and teaching students heart-to-heart.

■ The first step is to lead students into *purifying their hearts*. In my classes, I teach students to observe nature and then reflect on how humans participate in the flows and cycles of the natural world.

Since many students attend business school because they wish to "climb to the top of business," I ask them to extend this metaphor and think of the business world as a mountain. The metaphor allows students to see the formidable challenges they'll face in business in a more concrete way, one that disabuses them of notions of quick or easy success. I remind them that climbing a mountain is a slow, deliberative process, beset with many obstacles, with few if any shortcuts. Reaching its peak requires persistence and appreciation. It takes just one misstep or one powerful storm to cause a climber to tumble, just as an error in judgment or lack of foresight can cause even the strongest leader to fall.

Once a mountain's summit is

achieved, a climber must descend gracefully and carefully to the base, just as a business leader at the top of his field must consider the ideal way to step down gracefully from his position of power. When students truly understand the natural cycle of business in this way, they learn to make decisions carefully and deliberately, and they learn to understand the essence of any subject.

Analogies to the natural world can be used with any topic, such as my own subject of statistics. I teach students to polish a statistical model by removing unnecessary noise—that is, to make sure they consider only those factors that are absolutely relevant to the matter at hand. For example, students recently used quantitative forecasting techniques to better predict sales for a multinational high-tech company, filtering needless noise from the data and eliminating unrelated variables from the models. Another team of students sorted and analyzed data to forecast passenger volume for a major international airport and create the key leading indicators for managing expansion and construction.

But, more important, I explain to students how polishing the model in this way is akin to purifying their hearts by removing all the dust and extraneous considerations from their lives. I use critical life lessons as examples—for instance, I tell them that selecting the best statistical model is analogous to choosing the best spouse by removing all the "noise" from the heart and concentrating only on the essentials. I believe that teachers should always link the subjects they're teaching to examples from the human heart. This allows students to see inside



themselves and realize that every business discipline is ultimately rooted in humanity.

Once students are taught to think this way—in both their professional and their personal lives—they can apply this model to all their major decisions. It is my contention that business leaders who have learned to be self-reflective, who know how to erase the "noise" from the situation they are contemplating so they can see the essential truths and likely outcomes, are less likely to become rogue traders or CEOs who take rash and ultimately disastrous actions.

■ Business professors also must teach our students to be reflective through cooling their hearts. I encourage students to take three to five minutes outside of class each day to sit alone and silently reflect on the new knowledge they've acquired. They should take time to digest what they've learned about every statistical topic, including motivation and purpose, data collection, model formulation and assumptions, parameter estimation, model diagnosis, statistical inference and prediction, and interpretation. This digestion process allows them to cool down, overcome panic, and build confidence. It also helps them



to develop their creativity and independent thinking skills.

More important, this process naturally leads students to further ponder their own life experiences and nurture greater tendencies toward appreciation, sympathy, forgiveness, persistence, and innovation. As a result, they learn to keep their own counsel. They understand that conscientious and deliberate decisions emerge only after calm and careful reflection.

I am convinced this process is valuable because, after they've earned their MBAs, alumni often get in touch with me. They share with me how the insights they gain are helping them in their careers to better understand complex information, ask the right questions, find solutions, demonstrate complicated concepts in an effective manner, and apply quantitative skills to make decisions.

■ Most business students learn that they should make their decisions based on cold, rational analysis, but I believe they also must learn the value of *warming their hearts*. That is, I want them to feel a sense of excitement about what they've learned and be able to communicate that excitement to others. Respected leaders in art, music, literature, and

sports energize and inspire others through their passion and discipline, and the same approach works with MBA students. To this end, my goal for each class is to find ways to ignite my students' passions—to help them take what they've learned and practice using it in unexpected ways.

For instance, to deepen their connection to the knowledge they've gained, I want them to solve a problem by hand with a small sample of data. This exercise helps them comfortably grasp concepts and makes statistics come alive.

They also learn to convey quantitative results in layman's terms for a nonquantitative world, and they use this skill to produce a series of high-quality reports. Through the process of warming their hearts, they develop a sense of passion, energy, and confidence that they carry with them the rest of their lives.

■ None of this is possible if teachers aren't communicating heart-to*heart* with students. I build a tight connection with my full-time MBA students by interviewing them at the beginning of class. I learn their backgrounds, abilities, strengths, weaknesses, and expectations for the course. These interviews build trust between the students and me, which makes it easier for me to offer them appropriate personal and academic advice. The interviews also allow me to spend more time with students who need additional assistance in purifying their hearts and digesting and practicing what they've learned.

But communicating heart-toheart means I also must be a role model for my students. I must demonstrate the passion, integrity, morality, diligence, and knowledge I wish them to develop further. From my example, students learn that the best leaders inspire trust among followers by listening to them, understanding them, and serving as mentors and role models.

A Heartfelt Philosophy

My approach and methodology may seem unconventional—perhaps even contrary to the philosophy and pedagogy in place at most business schools. However, in my 30 years of teaching, I have seen how my methodology can lead to positive results. I am continually inspired and energized by the response I receive from students who appreciate learning life lessons in their statistics class.

Business professors can help their graduates earn great respect as innovative leaders who create economic opportunities for generations to come. But I believe we can only do this if we reach the hearts of our students, build trust with them, and prepare them to lead with love and soul, whether we're teaching soft skills like leadership and communication or hard skills like statistics and accounting. In fact, it's the errors our graduates make in applying the seemingly straightforward hard skills that most often make sensational headlines. We can change those headlines—but only if we teach with heart.

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