

Teaching Stuff

The opening line of Paul Simon's 1973

song "Kodachrome" makes me laugh no matter how often I hear it: "When I think back on all the crap I learned in high school, it's a wonder I can think at all." High school can be a frustrating time for students as they struggle to absorb massive quantities of "stuff"—a word I'll use instead of Simon's more descriptive term. Few students seem to graduate from high school believing that the primary purpose for the experience was to learn how to think.

Simon's line is, indeed, funny. But if "high school" is changed to "business school," is it still so humorous? Those of us teaching in business schools bristle at the mere suggestion. Yet do business professors in 2009 encourage critical thinking any more successfully than high school teachers did in 1973?

Whenever I make teaching presentations around the country, I ask one simple question: "What is the biggest problem in college education today?" My answer—"The obsessive desire to teach stuff"—elicits a rather hearty laugh, or perhaps it's a guilty one. My audience knows that, at some essential core, college programs aren't all that different from those found in high schools. Our students might not realize that our top priority is to aid them in the development of critical thinking skills. They might think we just want them to learn a bunch more stuff.

We are inundated with wise quotations about education. My favorite comes from Malcolm Forbes: "Education's purpose is to replace an empty mind with an open one."

Unfortunately, professors find it

simpler to teach stuff than to help students learn to think logically and reason for themselves.

But I believe it's possible for business schools to evolve from "stuff-based" curricula to "thinking-based" curricula. I have three suggestions for achieving that goal:

One: Outlaw lectures. Lecturing is easy. All the participants know their roles, so they can operate on autopilot. The professor does all the preparation and thinking, while students serve as stenographers. A student's failure to prepare or reluctance to participate is irrelevant. The main challenge is keeping the audience awake.

It's true that facts, lists, rules, formulas, dates, and similar stuff can be conveyed through lectures. However, anything students can learn by sitting through a lecture they can learn just as easily, and more cheaply, by reading a book. More than 200 years ago, Samuel Johnson asserted, "Lectures were once useful; but now when all can read, and books are so numerous, lectures are unnecessary."

If administrators want to change education in a radical fashion, they should establish a rule that professors can do no more than 50 percent of the talking in any one class. That single change would push the whole realm of business school pedagogy rapidly into the 21st century.

Some may question how students can learn if professors don't lecture. Ken Bain interviewed outstanding teachers for his wonderful book, *What the Best College Teachers Do*, and one of them described the learning process as "sort of Socratic." He said, "You begin with a puzzle—you get somebody puzzled, and tied in knots, and mixed up." Those puzzles and knots generate questions

for students, and the professor helps them untie the knots.

To me, that approach represents college education at its most exciting. Forget lectures. I think professors should set up a scenario and pose the question "Why?" at every possible juncture. Or, perhaps "What will happen next?" or "What difference does this make?" or "How does this change the situation?" Teachers should push students to provide their own speculations, and then force them to defend the underlying logic. In the real world, they will have to support their assertions, so they should practice the skill in class—every day. At that moment, students are no longer learning stuff; they're developing critical thinking skills.

Two: Change the nature of exams.

I think students should be allowed to use books and notes during every test. If this sounds unorthodox, I'll ask one question: What can possibly be the advantage of establishing a grade through an examination question whose answer can be found in classroom materials? Test questions should be better than that. Books and notes might serve as useful tools, just as they will in the real world, but they should not supply the whole answer to any test question.

When a professor informs students that they will be allowed to use their books and notes during an examination, he's fired a warning shot. Such tests cannot possibly stress memorization; the teacher is seeking a complex level of comprehension that incorporates analysis, understanding, and making logical connections. The stakes have been raised for both student and professor. The entire tone of the class has changed.

The announcement of an open-book policy will reverberate in a

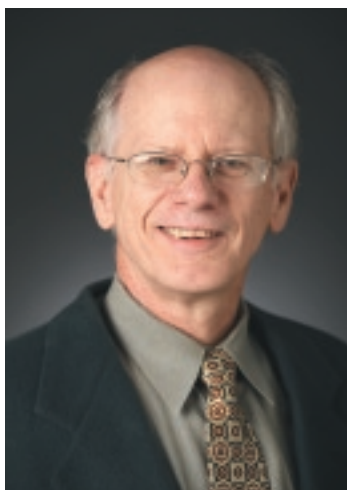
student's mind in this way: "There is no reason to memorize anything; I'll have my materials during the test. The professor wants something more than the regurgitation of facts, rules, and figures. I will

need to understand this stuff so that I can make use of it."

The announcement also will have a profound effect on the professor. "I can no longer rely on testing memory skills to differentiate grade levels. I have to create questions that do not allow students to parrot back answers from the materials sitting in front of them. If they are to have a fair chance of answering higher-level questions on the final exam, then all during the semester I must guide and push them to achieve understanding that goes beyond the mere learning of stuff."

In poker terms, the professor is going "all in." Most closed-book tests are easy to write and grade. Textbook test banks are available to churn out mechanical questions that even can be "corrected" electronically so that no feedback—other than a numerical grade—is necessary. But if students will have their materials in front of them, it becomes ludicrous for a professor to use a test bank to generate questions. Instead, professors must invest significant time and thought in developing questions at a more sophisticated level.

Nothing forces professors to focus on identifying and achieving desired class outcomes better than writing open-book and open-notes test questions. And when they do, they elevate the college experience



to one that requires students to think, not merely memorize.

Three: Cull the useless material.

I help to maintain a successful accounting textbook that I first authored 25 years ago. Adding new sections is easy,


but deleting any subject—no matter how archaic—is extremely difficult. Squeezing in new topics freshens the material. Eliminating even the smallest subject requires serious evaluation and editing; it also creates holes that must be bridged in some logical fashion. The temptation to leave stuff in place regardless of relevance is always lurking. That's one reason why textbooks now resemble encyclopedias.

College courses suffer from a similar problem. Instead of periodically rethinking the structure and content from start to end, professors add material but hesitate to delete. Over time, courses can become a hodgepodge of subject matter without a logical framework. Ask professors why they cover a particular topic, and they offer the usual suspects: "It's always been included," or "It's in the textbook, so it must be important," or "I've already developed good PowerPoint slides."

Only two reasons justify including subjects and concepts in a college course. First, they have relevance to the real world. To help assess relevance, professors should create a focus group of recent graduates. They should ask these alums to identify which topics have been important to them in their jobs and which ones represent extraneous knowledge. Subjects to remove may become obvious.

Second, these topics hold some theoretical significance. Logical understanding is built on a conceptual platform. Even if some subjects are unrelated to the world in a practical sense, they might be essential in creating foundational knowledge. If so, they cannot be abandoned.

Subjects that do not meet either of these criteria should be considered for elimination. It's impossible to justify spending class time on certain topics solely because of historical precedence. I am currently using a best-selling introductory financial accounting book that presents five full pages of material on bank reconciliations, a procedure that has no theoretical tie to accounting and that most high school students can easily learn in five minutes. That is just one example of the "stuff" that can fill up a curriculum, taking space that would be better used helping college students develop critical thinking skills.

The three steps I have proposed—eliminating lectures, writing open tests, and pruning course content—could profoundly alter the management curriculum. And they could achieve what I consider the most admirable goal: moving the business school program from stuff-based to thinking-based education. 

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