

The Doctor and the Thoroughbreds

THE WORD “DOCTOR” DOES NOT INDICATE A person who heals. The etymology of “doctor” reveals that the Latin root verb—*docere*—means both “to teach” and “to lead.”¹

In medicine, we take deep historical pride about teaching the next generation of healers. We hope that some of our trainees will evolve into medical leaders—genuine thoroughbreds. Yet, we doctor-trainers receive little or no formal instruction about how to teach or how to lead. Furthermore, we do not capitalize on existing university formal training programs for teaching (school of education) and for leadership (business school, ROTC programs).

While obtaining a master’s degree in health care management a few years ago, I was convincingly impressed that the business school active learning style was far superior to all my medical lectures from medical school to CME. Imagine reading an ironic surprise—the Dean of Harvard Business School recently editorialized in the *Harvard Business Review* that in order to enhance business education, business schools would need to teach like—of all places—medical schools!²

A wise adage acknowledges that to devise a solution, we must first define the problem. The problem at first blush seemed to be the classical situation of the grass appearing greener over the fence in the next pasture. At second blush, however, the metaphorical pastoral scene might instead actually require 2 distinct types of grass for optimal educational nourishment.

Benjamin Franklin stated, “Tell me and I will forget. Teach me and I will remember. Involve me and I will learn.” Dr Franklin suggested 2 grasses in 2 pastures.³

Business schools excel in the didactic (*didactic—apt at teaching*) pasture.¹ Medical schools excel in the experience (*experience—knowledge gained from repeated trials*) pasture.¹

Medical education still relies heavily on the traditional lecture format for didactic teaching. “Lecture” means “to read.”¹ Reading is a passive process for the learner. The professor holds the power and reveals previously unknown facts to the still-uninformed student who reads the slide information for the first time. Subsequently, the “lecture” is linked with a “test” to ascertain retention of the material. “Test” derives from “a small burned-out earthen vessel” used to melt metals¹—intriguingly, after an examination we do feel “burned out”!

Didactic education in business schools emphasizes active learning. Before even meeting a new teacher, each student reads an assigned case in advance and answers

questions. The individual students subsequently team together to address the same case and questions, and each team forwards the best collective answer to the still unmet teacher. In class, the students briefly repeat the case and select random classmates to answer the questions—so all must be prepared to participate. Most of the time with the professor is spent in expansion of key issues and encouragement of students to imagine novel solutions as if each were in charge of the problem detailed in the case. Power is shared by all members of the class. All take turns speaking, and considerable time is spent in active listening and formulating reflective comments. Business schools grow better didactic grass.

Conversely, experience grass is sweeter in medical education. In clinical medicine, we experience real patient contact in a real health care setting to solve very real life problems—and sometimes very real death problems. Medical care is not just a dress rehearsal. We are nourished by much better experiential grass.

We need additional metaphorical ingredients to grow grass—water (tangible) and sunshine (intangible).

We can evaluate how well we are using the water resources to grow our horses by measuring water volume consumed, average horse weight, and running speed. Pasture tangibles honor our time-honored medical educational methods to monitor success of our trainees. We are comfortable with tangibles. Tests reassure the faculty that a reasonable percentage of concrete information has been recalled.

How do we measure the intangible euphoria of sunshine on the first warm spring day? Professors might be less comfortable with immeasurable educational intangibles. A student can “like” one professor over another—especially should the relationship mature into a mentorship. How is preference measured? Perhaps intangibles are analogous to the mysteries of why a horse will run faster with a specific jockey or when galloping in the mud. Perhaps we should celebrate the intangibles that make a young physician “want” to spend more time with a dying patient, even if there is no formal test for such behavior.

Another relevant pasture metaphor is a cloud. In education, the cloud is the digital world that allows instant access to endless facts. Formerly, a professor-physician served as a repository of facts—now our smartphones contain more facts than any teacher. The role of the professor has matured into a coach for experience about how to use those facts. Otherwise, the cloud might saturate us like a dense fog—complicating our judgment rather than clarifying solutions. Therefore, we also must create an effective “instinct” filtration system for trainees—

what information not to use as honed from our conventional training. Right-brained instinct education will perhaps require simulations and practice runs. Read the essay *Escape Fire* by Donald Berwick—parachute firefighter survivors were saved by instinctually “unlearning” training tactics in a new incendiary situation that killed most of the group.⁴ Or recall the *Star Trek* training simulation to rescue the ship, *Kobayashi Maru*, an “unwinnable” computer scenario to evaluate trainee reaction to a terrible situation.⁵

Our Vanderbilt Otolaryngology Residency educational program has evolved to formally train thoroughbreds. In the didactic arena, we have instituted business school style case-based learning. The material is prepared in advance by teams, and all residents contribute. Facts are valued less than creative thinking on a Bloom’s Taxonomy platform; Bloom even analyzed how to develop talent in youth.⁶ We use an audience response system for collective thought. All sessions are digitally recorded for later review. The “sunshine” feedback from the residents was initial skepticism, yet now the residents would not return to former didactic ways.

Regarding leadership, Naval ROTC initiated our 4-year Leadership Program. This year our residents train in public speaking and communication. Next year we will provide a micro-MBA. The final year we will organize capstone projects that require actual leadership.

Regarding right-brain compassion and instinct, we created an unwinnable scenario for the residents with actors. The scenario involved you being a surgeon whose patient died in the operating room—you must inform the family. We also stretch right-brain imagination and instinct during the Bloom’s sessions to emphasize disease elimination in the future rather than memorizing how to treat disease currently.

Improvement of education is cheaper, easier, and faster than research to cure disease. We invest billions of dol-

lars in research, and new treatments require decades. Education improvement is practically free and requires merely a few years; the main expense is overcoming inertia.

“Thoroughbred” does not refer exclusively to horses—when used for people the term means “thoroughly accomplished¹.” Have we accomplished all that we can to train our colleagues and to educate ourselves for the never-ending race ahead? We can do better. Educational renewal is not just about cleverly using novel pedagogical techniques and new techy tools; as doctors we are by definition duty bound to teach and to lead.

Roland D. Eavey, MD, SM

Author Affiliations: The Vanderbilt Bill Wilkerson Center for Otolaryngology and Communication Sciences and Department of Otolaryngology, Vanderbilt University School of Medicine, Nashville, Tennessee.

Correspondence: Dr Eavey, Otolaryngology and Hearing and Speech Sciences, Vanderbilt Bill Wilkerson Center for Otolaryngology and Communication Sciences, 1215 21st Ave S, 6310 Medical Center East South Tower, Nashville, TN 37232-8605 (roneavey@vanderbilt.edu).

Financial Disclosure: None reported.

REFERENCES

1. Online etymology dictionary. <http://www.etymonline.com/index.php?term=doctor>. Accessed May 1, 2012.
2. Nohria N. What business schools can learn from the medical profession. *Harvard Business Review*. 2012;90(1-2):38.
3. Franklin B. *Poor Richard's Almanack*. Philadelphia, PA: Benjamin Franklin;1732-1758.
4. Berwick DM. *Escape Fire: Designs for the Future of Health Care*. San Francisco, CA: Jossey-Bass; 2004.
5. Kobayashi Maru. http://www.startrek.com/database_article/kobayashi-maru. Accessed May 1, 2012.
6. Bloom B. *Developing Talent in Young People*. New York, NY: Ballantine Books; 1985.