

2005-06 Jean C. Brierley Presentation on College Teaching

“You are what you eat: A Nutritionist’s View of Teaching”

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Thank you, Dr. Seidel and President Hart. It is indeed an honor and a humbling experience to be chosen from so many distinguished teachers here at the University of New Hampshire - I know how many of you are out there, because I get most of my ideas by watching you! I want to thank and recognize Lee Seidel, Michael Lee, and the Center for Teaching Excellence. Lee, Michael, and the Center are such gifts to us here at UNH. I can’t count the number of times I’ve turned to Lee for advice and he always answers. We are so lucky to have him. I want to thank members of the Faculty Awards Committee who selected me for this award. I also want to thank my colleagues who took the time and energy to nominate me – Bill Condon, Joanne Curran-Celentano, Janet Anderson, and Tom Foxall. I look up to each of you for your love of teaching, your dedication to the academy and most of all, your service and support to those around you. It touches all you do; you are my role models.

By training, I am a nutritionist, not a teacher. In fact, most of us in this room were probably not trained as teachers: we were trained in our disciplines. But our desire to open the minds and hearts of our students to the beauty of our disciplines sent us in search of ways to become better teachers. We work hard at this. We take classes, we talk with each other, we share ideas – and we learn from wonderful teachers around us.

Many wonderful teachers have passed, and continue to pass, through my life. As they do, they leave gifts. Today, I’d like to share 3 of these with you - *empowerment*, *zeal* and *authenticity*. I’d like to tell you about their origins, and how, once “fed” to me, have become part of me.

First, let’s go back in time to 1965. I’m in eighth grade at Kennedy Junior High School in Natick, MA. Here I am. I am tall, shy, and a baseball player. I wanted to be like my classmates – cute, confident, bubbly, cheerleaders. Enter Mrs. Mack. Mrs. Mack was my algebra teacher that year. I can see Mrs. Mack then, as a tall, elegant, dark-haired, classically dressed woman with a charm bracelet dangling from her wrist that tinkled as she wrote on the blackboard. Actually, I can see a lot of my junior high

school teachers. But I remember Mrs. Mack because she was the first teacher who *empowered me*. What a glorious feeling this was – to feel empowered at age 13! One way she did this was with very low-profile, what she called “quizzes”. We came to know these quizzes as short, simple, and always 10 questions. Well, when you are answering short, simple questions, and always getting 9 out of 10, or 10 out of 10 right, you are slowly but surely are empowered. You get a clear message: I can do this! And Mrs. Mack would affirm this when she would hand me back my quiz, smile, and look me in the eye. Do you know how empowering that was? I suspect you do, and I suspect you can bring to mind your own Mrs. Mack. To have a teacher lift you up, affirm that you can do something, and reinforce that *until you believe it yourself*, is a gift. It was a gift to my learning, and it became a gift for my teaching. I actively look for ways to empower my students. It may be by posting one student’s exam answer on Blackboard as a model for others to learn from (borrowed from Bill Condon), or encouraging students to revise a paper and resubmit it for regrading *ad nauseum* (borrowed from Cynthia Gannett and Gail Fensom). It’s an awareness I try to bring it into each classroom I enter, because you never know who you might touch. And you might not find out until 40 years later, like Mrs. Mack did. This morning, I had the pleasure of looking Mrs. Mack in the eye for the first time since 8th grade, to express my appreciation to her for teaching me about *empowering learners*. I’d like to introduce you to Mrs. Margaret Mack.

- 1) Your teaching style, of empowering your students so beautifully, so painlessly – where did it come from?
- 2) Can you share with us a story of how you empowered a student that is particularly memorable for you?
- 3) I believe that teaching grows strong because a teacher is “fed” gifts that become part of their being. What one, memorable gift were you “fed” that strengthened your teaching?

Next, let’s fast-forward 12 years to 1977. I’m in Davis, California now, having traded the baseball glove for running shoes (PowerPoint). I’m sitting in the back row of a lecture hall in Physiological Chemistry class watching my PhD advisor, Dr. Richard A. Freedland (or R.A.F.) teach 200 undergraduates about metabolism. I had never heard anyone teach like this before. He made metabolism – the biochemical processes that convert what you eat into what you are - come *alive*. It certainly wasn’t his props – he taught with an overhead projector and a marker. It certainly wasn’t his appearance – he wore the same cardigan sweater each day. It was his *zeal*. It would descend upon the lecture hall like a wind. His arms would flap, his voice would crack, his eyes would fill with

excitement. He would talk about the biochemical oxaloacetic acid joining up with another biochemical called acetyl CoA like a pair of figure skaters. They would come together, twist, swirl, jump, and 5 enzymatic steps later, they'd separate but the oxaloacetic acid would be regenerated, allowing it to join with a second molecule of acetyl CoA and the metabolic cycle would spin again, and again, producing chemical energy for the body. This metabolic cycle, named the Krebs Cycle, became so simple, and so beautiful. I used to hate the Krebs Cycle, until I heard RAF teach it. Then I loved it.

Every Monday, Wednesday and Friday, I would watch RAF work his magic. He would speak of a liver cell deciding what to do with the food we had eaten, as if every liver cell had a little brain inside it! How does a liver cell know when to take a molecule of what was once spaghetti and burn it to produce heat to keep us warm, or convert it to another molecule for making hair, or convert it to fat for our hips? RAF conveyed the magic and the mystery of metabolism, and passed along that gift to his students by his example. As a scientist, I cannot tell you how this passage happens, only that it does. Again, I suspect each of you knows what I am talking about, because you've experienced it – this *educational osmosis*. I love metabolism and I love to convey its mystery, its elegant simplicity and its profound depth, because I've been so inspired by RAF. Today, RAF couldn't be here physically, but he is with us vocally. Please welcome RAF.

Questions:

- (1) Your *zeal* for metabolism, making it *fun and alive* – where did it come from?
- (2) You made science *fun in* the classroom.. My question is: did you have to work at this? Were there times that teaching wasn't fun but you slogged through it? If so, how did you do this?
- (3) RAF, we've been talking about the notion that teachers receive gifts from others, like your gift of zeal to me. Can you tell us about one, memorable gift, aside from zeal, that you received that has greatly impacted your teaching?

Now, let's fast-forward about 20 years, to the late 90's. I'm in Durham, New Hampshire, keeping busy and being productive – er, reproductive (PowerPoint). I have a student sitting in my office. Linda is an advisee, a non-traditional student, returning to school after 14 years away. She is passionate about science, eager to learn, curious about everything. She exudes grace - a harmony of manner, a sense of good will that is freely rendered. Over the next few years, she shares the roots of her passion with me. They are personal. She struggled with anorexia in her twenties, for nearly a dozen years. She recognizes that anorexia will be a life-long issue for her. She accepts the fact that,

because of it, she will never have children. Her passion is to educate others and to help women who struggle with anorexia return to wholeness. She wants to prevent them from going through what she went through. In every one of our discussions, never did I detect anger, blaming, resentment. Only grace.

As a senior, Linda takes my class in *Nutritional Biochemistry*. In this class, we explore, of course, the wonders of metabolism all semester long. One of the things we explore towards the end of the semester is how the body responds, metabolically, when it doesn't get food. Starvation. Each week, our fourth contact hour was an "applications" class (thanks to Lee Seidel's suggestion!), in which we'd see the "applied side" of the biochemistry we had explored in the previous 3 lectures.

Linda knew that the topic of starvation was coming up. So she came to me, and offered herself, to be the guest speaker. She saw this as an opportunity to speak to students who would go on to become dieticians and perhaps work with anorexics. It was an opportunity for her to educate others; she saw the good it could do.

So I told my students, "On Wednesday afternoon, we'll have a guest speaker who has struggled with anorexia. You won't want to miss it". The interest was palpable – in fact, several students asked if they could bring a friend to the class. So on Wednesday afternoon, after a short introduction to the topic, I said "and now I'd like to introduce our guest speaker". The students looked toward to the door, expecting a visitor. Instead, Linda stood up and walked to the front of Iddles Hall. And she said "I bet you're surprised to have a classmate as a guest speaker." She talked, gently, gracefully for the next 20 minutes. She told her story, and the things that future dieticians needed to hear. About how, when you've consumed only one glass of flavored milk per day, month after month, your stomach shrinks to the size of a walnut. So don't put a tray full of food in front of an anorexic and tell her or him to just eat – they can't. After 3 bites of food, their shrunken stomachs are screaming and eating is physically *painful*. You could have heard a pin drop the whole time Linda spoke.

When Linda finished – and I'll never forget this – one of her traditional-aged classmates at the back of the lecture hall raised her hand. Linda said "Yes?" The student rose from her chair. She said "I have so much admiration for you. You have such courage. I could never have done what you've done, to get up in front of your classmates and speak. Thank you." She clapped, and all 70 of her classmates followed suit.

The students were buzzing for days after Linda's talk. But for me, it wasn't just the talk. It was the *authenticity* with which she spoke, and her service freely rendered, that stuck with me. Linda showed me how *authenticity*, when infused into the classroom, opens hearts *and* minds. I saw that effective teaching in my classroom doesn't have to come from me. It just has to come. So I invite authenticity into my classroom by sharing my stories, inviting guests to share their stories, and by listening to my students' stories. These stories often come through writing. I'll ask students to reflect, in writing, on a guest speaker: what connections did they make with the speaker's story? What came alive for them? When I read their stories, I'm always amazed how many of my students struggle with diabetes or inflammatory bowel disease, or know someone who does. I was blessed to witness the transformation of a student who, for her whole life, knew her father as a diabetic, but never really *understood* – not just biochemically, but personally - what that meant, until now. Students have amazing stories to share with us, if we ask.

Linda graduated from UNH in 2000, graduated from medical school in 2005 and is now a physician. She and her husband Joe have just finished renovating their home in Newton, NH into a clinic, and their long-term goal is to create a live-in facility for women coping with disordered eating. Please welcome Dr. Linda Madore.

Questions:

- (1) Linda, the *grace* and *authenticity* with which you educated your classmates that day, was such a gift to me. What are its origins?
- (2) Since you've left UNH, you've done a lot of teaching – as a medical student in Seattle, Washington, and now in your medical practice. Can you share with us a memorable experience in which *authenticity* – either yours or someone else's - transformed the experience?
- (3) Lastly, what one gift have you been “fed” that has fueled your teaching?

Thank you for your kind attention this afternoon, as you digest and metabolize your luncheon fuel. Remember, this food has become part of you - you are what you eat! I am honored to have been “fed” these three wonderful gifts for my learning and teaching - *empowerment*, *zeal* and *authenticity* – by Mrs. Mack, RAF and Linda. But they are reinforced daily through other precious people in my life who I would like to introduce to you:

- my Dad, Jim Beliveau: my Master teacher and Ultimate model of teaching by example.
- my daughter Sarah and son Matthew: who supply me with wonderfully creative ideas for my teaching, help me to see life from the student side of things, and keep me real, like when I respond to your question with a question and you say “Mom, don’t be doing that teaching thing with me.”
- My husband, George: my beacon of support, honesty, goodness, and my nourishment.