



## Statement of Teaching Philosophy and Goals

After finishing my internship, rather than joining my peers signing on as an associate at a local veterinary clinic or moving on to residency, I took a job teaching high school chemistry at a public school in Buffalo, NY. The student body came predominantly from a low-income urban area, and was predominantly Black. The school didn't have a budget for textbooks for our class, much less a laboratory or any supplies for hands-on learning; I was the sole teacher for classes of up to 30 students each. The students, while motivated to succeed, had limited resources and competing priorities: most did not have access to computers at home, many worked after school to supplement their family's income or in the home helping with childcare, some had children of their own. Every day I was confronted with the difficult realities bred of institutional inequality, racism, and decades of regional economic hardship. Any notions I had of delivering a chemistry course in the way I was taught (in my upscale white suburban high school) – with well-organized pithy lectures, lots of problem sets and regular exams, and weekly hands-on labs – quickly went by the wayside. I moved from powerpoint to the chalkboard, since students were taking notes by hand, and from lecturing to group work and peer-teaching, to give the higher-achieving students more responsibility and spend extra time with those who needed hands-on support. By the end of the year, I had learned enough to solicit feedback from my students: how did *they* want to engage with the material? We ended the year with students presenting their own creations – short videos, raps, and skits – to describe their element-of-choice from the periodic table.

Just like these high-schoolers, every veterinary student has a unique story, background, and set of circumstances that influences their ability to learn and perform both in the classroom and clinic. And just like in this high school setting, I have learned to adjust my preconceived notions of how *teaching should be* to the reality of how *learning is actually accomplished*. With the help of the NCSU Teaching in Biomedical Sciences courses and the Academy of Educators, I have delved into the research underlying some of the techniques I stumbled upon during my year as a high school teacher, and have strengthened my commitment to diversity, equality, and inclusiveness in veterinary medical education.

As an educator, I strive to embody the vision of a servant-leader: leading by example and often leading from behind. As an educator of veterinary students, I must not only develop in the learner a feeling of autonomy, but simultaneously ensure high quality patient care. To do this, it is important to adjust the degree of supervision to align with the level of the learner, whether this happens while working through temperature conversions in high school chemistry or performing joint taps with fourth year veterinary students. This modulation of supervision is critical not just in developing procedural skills, but also in the much more difficult arena of clinical reasoning. In this regard, as part of the NCSU Internal Medicine service I have helped to integrate a focus on metacognition and sources of bias in clinical reasoning into our daily student topic rounds and weekly house officer service rounds. Studies suggest that these reflective skills can be developed with practice, allowing learners to advance beyond mere competence toward expertise. To effectively “supervise” a learner practicing clinical reasoning skills, I begin by verbalizing my own thought process as we work through a case, demonstrating my methodical approach to a difficult problem list. I then ask the student – both during patient rounds and with their written SOAPs – to show their reasoning process, focusing feedback on the process itself.

Every learner's mind works differently and students must learn to tackle problems not in a proscribed way, but rather in the best way that works for them. As the authors of a 2013 review of medical education say, "without external input, our capability to direct our own learning is poor as a result of our flawed ability to accurately self-assess." Veterinary students are typically advanced enough to understand their own learning styles, but often have blind spots (the “flawed ability to accurately self-assess” that can claim us all as victims). I strive to act as a creative but disciplined motivator to reveal these blind spots to students in a constructive manner. As a facilitator



for a first-year veterinary student clinical reasoning course at NCSU, I provided students with a variety of tools to suit multiple learning styles – both online and in-person – and solicited feedback from students at the end of each of three cases throughout the semester. Based on this feedback I integrated more specific details into instructions for completing SOAPs, and provided specific textbook references for students to use (to replace their previous preference for VIN-ing). I also focused on the diversity of backgrounds in my small groups, asking students to draw on their previous experiences to inform their approach to client communication. In one case, we used those diverse experiences (from urban to rural, across the spectrum of socioeconomic status, and from working farm animal to pampered fur-baby) to discuss different options for the diagnosis and treatment of hyperadrenocorticism. By the end of the session, students appreciated the complexity of integrating the best recommendations from the ACVIM consensus statement with the wishes and financial realities of their hypothetical clients.

While my preferred role as an educator is one of encouragement and inclusion, I also recognize the importance of the “gatekeeper” role that faculty play for the department, university, and profession as a whole. As educators we are responsible for setting standards of achievement and for evaluating the progress of learners against those standards. This process relies heavily on both constructive feedback and appropriate assessments. Based on an AAVMC initiative, the NCSU Veterinary Hospital began to integrate Competency Based Veterinary Education into the curriculum in 2019, and I was part of a committee to help implement this move by designing draft rubrics for assessment of entrustable professional activities (EPAs). In addition, during my third year of residency I took on the responsibility for providing feedback to students during their Internal Medicine rotations. Observing the outcomes, I learned to utilize students’ own self-reflection to facilitate these sometimes difficult conversations and provide more effective formative feedback.

Ultimately veterinary medical education is not solely about competency, but rather advancement toward an ever-increasing level of expertise that requires a commitment to lifelong learning and sophisticated metacognition: the ability not just to practice, but to think about and analyze that practice. As stated in the *Philosophy of Medical Education*, (and applicable to *veterinary* medicine with a few well-placed phrases): “Professional values must be stressed and underlined in the entire course of [veterinary] medical school through role modeling, and being an example of dedication within the health care environment, not just lectures and courses on ethics and patient-doctor-[client] relations.” So while we continue to place important emphasis on scientific knowledge, we must also address in our learners big-picture biological, evolutionary, and comparative medical understanding, as well as clinical reasoning and the development of character, compassion, and integrity. My goal remains to transmit this set of knowledge, skills, and attitudes with an understanding of the human dimension of veterinary medicine; I strive to advance veterinary medicine while attempting to address the most relevant problems of the wider society that as veterinarians we are pledged to serve.

## **References**

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