

Kaley (Kaleen) Hayes, PharmD

Philosophy of Teaching

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My teaching philosophy is built on foundations developed from my own learning and teaching experiences. The four major pillars of my teaching philosophy are active learning, strong student-teacher relationships, real-world focus, and multi-media instruction. Although many of the students I teach will not become academics, I wholeheartedly believe that these students must be able to evaluate and understand scientific literature in the fast-paced, data-driven world of healthcare and public health. I strive to cultivate a strong understanding of epidemiological methods and critical appraisal skills in my students. My ultimate teaching aim is to develop future clinicians, researchers, and public health professionals who can conduct and understand research at the highest levels.

ACTIVE LEARNING

I strongly support active learning to increase engagement in introductory courses in research methodology, which may appear extraneous to students who have not yet had the opportunity to apply these skills. Although a structured lecture approach can be valuable to efficiently provide foundational knowledge, I have found that active engagement opportunities help to establish a deeper understanding of concepts. To enhance active learning in my courses, I implement pre-course activities, a benchmark knowledge poll at the start of class, and short in-lecture skills checks and exercises. Because I leverage active learning to establish the foundational taxonomies of “remembering” and “understanding,” I expect students to self-practice “applying” and “analyzing” using individualized strategies and reflection on past experiences so that they can be successful on assessments that focus on “evaluating” and “creating.” My preferred assessments typically require demonstrative performance and application of skills to new scenarios, like literature appraisal or example research proposals.

I have implemented active learning in my courses. Firstly, as a lecturer for *Global Pharmaceutical Policy*, a PharmD and public health graduate course, I created a learning module on conducting research abroad. Before class, I offered students a choice in pre-class reading which would determine their groups for an activity after the lecture, began the lecture with a discussion to assess students’ experiences abroad, and placed knowledge assessments throughout the lecture that students could self-assess via polling technology. Similarly, as a lecturer for the multidisciplinary *Introduction to Pharmacoepidemiology* graduate course, I leveraged the small classroom size to add continuous discussion to the lecture through questions on pre-reading (“*What are the Bradford-Hill Criteria for causality?*”) and application of lecture knowledge (“*How long would the washout window have to be in a crossover study of labetalol versus placebo?*”) Both lectures received positive student feedback— for example, the *Global Pharmaceutical Policy* module I delivered inspired a student to change her final project topic to evaluating preparatory courses for clinical rotations abroad, and students in the *Introduction to Pharmacoepidemiology* course gave the module an average “Strongly Agree” on teaching assessments.

STRONG RELATIONSHIPS

I strive to cultivate strong professional relationships with my students, as I believe good educational relationships promote student motivation, open communication, and enjoyment of the course. Firstly, these relationships come from a foundation of mutual respect, which I try to establish by getting to know each student and learning about their prior training. To foster communication, I clearly outline the necessary components for student success and provide transparency in assessment evaluation. Finally, I grow

relationships with students by communicating my passion for the subject and allowing my sense of humor to show, as I believe that sharing our humanity sets the stage to foster learning and development that is long-lasting.

An example of my fostering of trust with students comes from my 3 years as a teaching assistant for a *Global Pharmaceutical Policy* course. To clearly communicate my expectations for the mid-term essay examination, a new format for most students, I arranged a practice mid-term exam, complete with a detailed rubric so students could self-evaluate. The average student score increased by 5% as compared to the previous year.

PROFESSIONAL APPLICATION

I am motivated to learn when the content has clear applicability to real-world problem-solving, yet understand the challenge of doing so with students who have not yet had opportunities to apply research methods. In addition to active learning methods to maintain student engagement, I also tie in real-world examples and complex assessments that illustrate the professional applications of critical appraisal and research design.

For example, I created a critical appraisal assessment for PharmD students preparing to embark on their clinical rotations, focusing on real-world applicability in patient care. The assignment first asked students to state basic clinical knowledge about zoledronic acid, then required students to critically appraise a landmark trial on the drug and concluded with a short answer section requiring explanations as to whether treatment was appropriate for a certain patient based on the article. Similarly, as a teaching assistant for an Epidemiology MPH program course, *Scientific Overviews in Epidemiology*, I leveraged my real-world experience conducting literature reviews for Osteoporosis Canada as part of their national clinical guideline update to highlight important aspects of developing an appropriate literature search strategy.

MULTI-MEDIA

I teach through an equal balance of reading, presentation, application, and multi-media. Though I always develop *a priori* course and session learning objectives, I also create a flexible plan that I can modify based on student feedback in real-time for synchronous lectures (through student questions, comments, or body language) or throughout the semester for asynchronous courses (based on weekly discussion board feedback). I also use several supplementary online materials, like YouTube videos, infographics, and journal articles as supplements for students to explore in their own time.

I was personally recruited to be the teaching assistant for the first-ever fully asynchronous online critical appraisal pharmacy course in Canada at the University of Toronto. Through this course, we use blended learning methods (didactic lectures and asynchronous discussion boards) to prepare future clinical pharmacists worldwide to understand critical thinking and research methods. I love the rapid adaptation of the course each semester to meet changing student needs and take advantage of new technologies. For example, as an expansion of my role as a TA to a lecturer, I used *Interactive Story* technology to create 3 new online course modules requested by students: *Intention-to-treat analyses*, *Non-inferiority trials*, and *Qualitative Research*.

EDUCATING GOALS AND FUTURE DIRECTIONS

Throughout my training, I have been motivated by a passion for the application of pharmacoepidemiology for real-world decision making for clinicians, policymakers, and patients, yet a major driving factor in my decision to pursue a career in academia was the opportunity to educate future clinicians and researchers. Mentoring and teaching students has shown me the importance of instilling a sense of importance in

students' work to drive them to achieve at the highest level. My future goal is to leverage my previous teaching experiences to create critical appraisal courses and micro-credentials for clinicians and policymakers.

I am a passionate educator and am committed to leveraging my multidisciplinary background and strong educating experience to teach the unique and essential skillsets of critical appraisal and research methods to future clinicians, researchers, and public health professionals. Through iterative, active learning; a real-world-application focus; and a blended teaching style built on a foundation of respect and trust with my students, I strive to help students grow as professionals as they progress through their training to independent practice.