

Peter Cohen's Statement of Teaching Philosophy

The goal of college education is to train students to succeed in their career choices. Students, faculty, and administration need to work together to provide experience and maximum exposure to learning opportunities. The most important responsibility of the teacher is inspiring the students' desire to learn. I will briefly discuss my philosophy of how to inspire students through three phases of teaching: planning, delivery and assessment. When the students' interests peak beyond the classroom, mentorship becomes the best way to transfer skills and knowledge.

The planning stages are when you decide on the message, think about the audience, package the message, and prepare the delivery. I've had the honor of enhancing general chemistry laboratory curriculum with inquiry-based modules. The modules incorporated current real world research selected based on the general chemistry classroom demographic to enhance attitudes toward chemistry. Modern technology was incorporated and the use of ANGEL technology enhanced organization and reduced paper use. The messages were delivered in writing, presentation, and kinesthetically making sure to incorporate as many of Niel Fleming's Visual-Auditory-Kinesthetic model of learning styles. A clear and well-organized delivery can help develop rapport, engage the students, and increase their desire to learn. Planning the delivery with timing of active breaks such as demonstrations, or solving example problems on the board can help keep students' attention.

Delivery can make it or break it for the students' desire to learn. For example, if class is after lunch, timing, word choice, inflection, and expression become essential when delivering a lecture. Students may suffer a sudden lapse of amnesia upon mentioning the word "calculate," meanwhile the answers come pouring out if they need to "determine" a molecular mass for a crime investigation. Attention to detail in delivery can mean the difference between teaching and not.

Frequent assessment is required to effectively adjust, plan, and tune the delivery. The use of homework, quizzes, and tests not only provide valuable feedback to the teacher but also provide a valuable learning experience, especially when feedback is rapid. Learning strengthens proportionally with the rapidity of feedback. I use Socratic inquiry to assess students during laboratory exercises allowing me to assess while building their confidence.

Mentorship has provided me the greatest opportunity to train students. I provide real world experience on all steps in science including brainstorming, experimental design, proposal development, data collection, interpretation, and presentation. After assuring safety and skill building, my students take ownership in their projects, an important inspiration for the desire to learn. Success is apparent when their proposals are funded, receive awards for their presentations, and succeed in their career choices.

I believe it's important to focus on student achievements and foster synergies from varied student interest, goals, and backgrounds. As a teacher I recognize the importance of adapting lessons to meet the needs of different learning styles and to ensure that all students have equal opportunity to be successful. I strive to enhance my teaching ability through developing curriculum, achieving funding to support my effort, and sharing through peer reviewed publications that will benefit all.