Statement of Teaching Philosophy

Thinking about teaching transports me to my early days as a student, the years when I was a professor and more recent times when I became a student again. I can observe and experience different teaching methodologies from both sides of the classroom, which also allows me to think about the expectations from each respective side. As a student, I longed for professors to expose the topics with clarity and purpose. As an instructor (in both Professor and Teaching Assistant roles), I required my students to achieve the learning objectives by being active learners and through critical thinking. After those years of learning and teaching, combined with other opportunities where I have shared content with audiences, I can identify the principle that motivated me to study the most and kept the attention of my students. That guiding principle is always to provide a context for learning the material at hand.

Context for instructional objectives

My initial goal in every lesson is for the students to understand the relevance to learn the upcoming content. I see this as drawing sketch lines before starting a painting; they provide a sense of shape, boundaries, and depth. For this purpose, a real example speaks volumes about the relevance of the topics. Elements such as historical anecdotes, video clips, or images would be good examples that invite discussion and draws in the learner to the material. With such elements in mind, the students have frames of reference that make the lesson relevant to learn. This approach was useful when I started studying computer graphics, particularly for the concepts that require significant mathematical notions. I decided to follow the same strategies when I taught computer graphics formally. For example, I showed gameplay video clips from video games to start the discussion on the relevance of geometric transformations and parametric curves to represent orientation and motion. A short video was enough to provide the motivation to engage the material and the expectations for the lesson.

Context for instructional topics

Each student has a visual paradigm that illustrates the development of the topics. The quality of that paradigm transforms into motivation or frustration for the learner. It is my goal that such visual models are as clear as possible by presenting the content in formal and practical contexts. The mathematical language allows us to manipulate concepts in the abstract realm following a systematic approach. A practical example transforms abstractions into concrete situations that shows how concepts work altogether. Teaching computer science benefits from both methods since we can directly implement the math using a programming language and run the application. The goals of this approach are two-fold: to show that the math works and to put it directly into practice.
Context for instructional assignments

As a student, I valued the assignments that allowed me to have practical experience. In those situations, I understood the relevance of the evaluated content and its purpose for solving real problems. As an instructor, I desire real-world experiences for my students, as well. These opportunities solidify learning and polish the details of each student’s mental image of the developing objectives. I find inspiration for such assignments from the products and services the students are absorbing, which helps me to design appealing, relevant, and engaging learning activities. Using these methods revealed exciting results while teaching mobile app development, which happened to occur during the mobile app boom in Colombia. As professors, we frequently try different strategies to manage student's use of cellphones during class. I decided to use it to my advantage by designing a text app assignment, which includes a feature that indicates if sent messages were read (it was before Facebook bought WhatsApp, so such a feature was not present in the application). The students found the feature both exciting and necessary. I gave them the freedom to implement this feature as they deemed appropriate; the results were impressive and even comical on occasions. Notably, two groups implemented a three-check system and a color code. To my surprise, the latter is what WhatsApp uses to this day.

Providing contexts to the learning objectives, topics, and assignments is an ever-developing process. This kind of approach varies for each student and classroom. Which means there are always elements to adjust and encourages improvement. I still follow this strategy when I am learning and teaching. Making content relevant to everyday application increases the student's knowledge and maximizes the learning opportunities. As a professor, I will provide context, show relevance, and equip students with the tools needed for interpersonal growth and continued success.