Student Learning Objective #1: Reflective Practice

Marc W. Stephenson

California State University, Northridge
Student Learning Objective (SLO): Reflective Practice by critically examining their subject knowledge, pedagogical content knowledge, and pedagogical skills to improve their diverse students’ learning.

Description of assignment: The assignment was done as a required for SED 695B: Advanced Laboratory Curriculum Development. I was required to develop a webpage that would provide information for other science teachers to use a discrepant event. The page is self-contained in that it lists the materials needed, the content standards addressed, and directions for performing the discrepant event (boiling by cooling).

Connection to SLO: In order to complete this assignment I needed to spend time thinking of a topic in chemistry that would lend itself towards a discrepant event. In doing so I had to critically examine my content knowledge and develop a discrepant event that would hopefully provoke thought in the diverse group of students that I serve on a daily basis.

Reflection on learning and teaching: In completing this assignment I learned a lot about how my students learn. In order to complete the assignment I performed the discrepant event for my students and discussed with them how boiling by cooling could be possible. The first time that I performed the event, I did not do a good job and therefore had to modify the procedure that I developed. I did not present the demonstration as a true discrepant event and invite the students to question what they were seeing. I learned that in order for the discrepant event to have its proper appeal with the students that I need to make sure that they appropriately question what they see.

The development of this discrepant event and the success that I had in my class when teaching the boiling process using a discrepant event has change the way that I plan
on teaching in the future. I have begun to search for more discrepant events to use in teaching other topics. I saw how engaged my students became when the demonstration was performed and that level of engagement is something that I would like to have in my classroom as often as possible. Since this assignment was completed I have incorporated more discrepant events into my entire curriculum. In the future I feel that my students will be better served by the incorporation of discrepant events and other demonstrations and in turn I will be able to be a better teacher.