Teaching Critical Thinking: Reflecting on a recent course

Submitted by Laboratory Mike on Wed, 06/17/2015 - 00:19

Writing as learning

   Last week I attended a workshop on using writing as a means of teaching critical thinking, and overall I was impressed by the idea of using writing to *learn* as opposed to using it only to *examine*. The latter case is the way we as teachers use writing the most: we give exams and quizzes to see what students already know. That said, most ESTEEM teachers utilize homework as one form of writing as learning, but where we may fall short is that we simply require students to perform the assignment correctly, and we do not seize on the opportunity to have a conversation with the student about what they are learning. In my own experience as a university TA, I can often see that two students who answer similarly on engineering problems (i.e. math and drawings) will answer radically different when given more open ended questions such as questions on ethics.

   The recommendation from the workshop, which I agree with, is to include more short writing assignments where appropriate. An easy way to do this is to take attendance by handing out a 3x5 card, and having students write 1-2 sentences about what they had trouble understanding or what new thing they learned that day. Another means would be to include questions in assignments that would ask the student to explain how they would go about solving a problem before they do so. The benefit to the teacher is that he can see how the student is *thinking*. The benefit to the student is that they learn far more when they have to *communicate* the way they are working through a problem. Critical thinking occurs once the student has to think about how to convince the teacher or their peers that their

   To be quite frank, writing out this review is my own attempt at learning just what I was taught at the seminar, and it's obvious to me when I go over the post that what I got from the course is quite different from what the teacher taught. This illustrates the point, and the importance of using writing as a form of learning; I didn't really know what I had learned from the course until I actually began to write about it a week later.

My review of the workshop

   The workshop itself was offered at Iowa State University through the [CELT program](), and was taught by Drs. David Russel and Jenny Aune. I've generally been impressed with what I can learn as a teacher from CELT, and this workshop was no exception. The takeaway from the course is using writing as a means of learning as opposed to examining, and that homework is a kind of writing assignment.

   Since the workshop was only one hour, there was a lot of content that was not able to be included, and one thing I would have wanted to see was a few minutes to explain how to grade writing assignments. Typically we grade on the basis of making the fewest mistakes, but once writing assignments become tools for learning as opposed to examining, it's not clear how such assignments should be graded. Hopefully this can open up a new discussion.

Useful resources

   A useful resource given during the workshop was the Writing Across Curriculum Clearninghouse, located at http://wac.colostate.edu/ . This resource emphasizes writing in multiple settings to reinforce subject matter, and at Iowa State it has been used successfully to encourage science and English professors to collaborate and have students write on major-relevant topics in their English classes.

   A book recommended in the workshop was *Engaging Ideas: The Professor's Guide to Integrating Writing, Critical Thinking, and Active Learning in the Classroom* by John C. Bean. As of this writing I have not read the book yet, but intend to do so for a follow-up post.

   A useful teaching method given during the course was the "belief/disbelief game" in which a teacher throws a debatable statement on the board, and asks students to pair up and give two reasons to believe or disbelieve the

statement, and then come up with evidence for each statement.