

Ongoing Involvement and Taking Ownership of your Education: Homework, Feedback, and Interactions

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As a full-time physical sciences instructor at Walla Walla Community College, a rural 2-year college, and an adjunction geology professor at Whitman College, a small liberal arts college, I work with two significantly different types of college students. I am often asked about the differences I observed between these two groups and the answer is a fairly simple one, and maybe not what people expect. Yes, the Whitman students probably have somewhat better entrance exam scores, but that is not what I believe to be the most significant difference – to me it is the fact that most of the 2-year students do not feel any real ownership of their education, whereas the Whitman students expect a great deal of themselves, as well as their professors. The way these differences manifest themselves is that a professor at Whitman can expect the vast majority of their students to show up for each class having fully prepared themselves for the topics to be discussed and ready to ask informed questions during class; whereas the 2-year college students need some strong inducements to learn the value of being prepared and what it feels like to have some sense of control and involvement regarding their education.

Some inducements I have employed are: daily homework (with feedback), daily comments, and post-exam reflection.

Daily Homework – I know it sounds old fashion, but classes in physics, chemistry, and mathematics generally have homework that is turned in on a daily basis, whereas in most other subjects, including geosciences, it is not common to require daily homework. During the past 5 years I have assigned daily homework in both an introductory earth science course and an introduction to climate course. The homework is generally review questions and problems from the textbook. The twist in the assignments for these classes, compared to my physics classes, is that the homework is completed and turned in before I lecture on the material. Requiring students do the reading and hopefully some synthesizing of concepts before coming to class makes for a more attentive and engaged learner in my experience. There are both positive and negatives aspects to this approach.

- Students are definitely better prepared for class
- Since homework is only accepted at the beginning of class and must be turned in by the student themselves; attendance improves with a significant decrease in tardiness
- Grading of the homework is done “gently” with lots of partial credit, encouraging all students to at least attempt the questions
- Instructor time for grading is somewhat of an issue, but I have dramatically reduced that by posting audio-visual answers on the class website after the assignment is due (I use **screencast-o-matic.com**)

Daily Comments – This is my version of the classic “muddiest point” classroom assessment technique, which also serves as effective attendance monitoring. At the end of class I have students fill out cards that ask: Today I Learned ____; and Comment _____. The first part is meant for them to recall the central topics of the day and the second is any optional comment they would like to make. I encourage students to ask just about anything here. I try and open every day’s class by offering my comments on whatever students have had to say. It is amazing how quickly they learn that I want them to offer up just about anything and they begin to realize that we are all in the class to learn together. This technique gives the students a true sense of ownership in the class and has become one of my favorite parts of teaching.

Post-Exam Reflection – I have trying this method a few times when a class has a particularly difficult time with an exam, especially if it is the first exam of the term. By getting them to think about their generally study habits and exam preparations it has proven quite effective in improving subsequent exam performance.

I know that I am not suggesting anything revolutionary here, but sometimes it is the simple stuff that can really make a difference when dealing with the underprepared, both academically and in terms of study skills, students that make up a significant portion of our 2-year college population.