Low Cost Ways to Shape Student Out of Class Work

Our students typically are in class about 11 hours per week (or a little more if they have labs). We all know that real learning requires student effort outside class, but faculty conversations on this topic often begin and end by bemoaning our students’ failure to study.

This session focuses on what faculty can do shape out of class work in two main areas. First, it addresses the need to help them use their study time effectively. Over time, we have developed highly honed approaches to learning; how can we help our students take some initial steps along that path? The second aspect is to explore how our behaviors/practices affect their willingness to put in the necessary time. A central question here is how can we make students more accountable for the work we say we want them to do outside class without significantly increasing our work load?

Bring your questions and solutions to the conversation led by Ken Jones (LES/History).

Three options: Sept 30 at 8 in Sexton 200, Oct 1 at 4:30 in Gorecki 204 C, and Oct 3 at 11:55 in Gorecki 120.

Low Cost Ways to Shape Student Out of Class Work

Presented by Ken Jones, Sept 30, Oct 1and Oct 3

Introductions

How much time do you expect students to spend studying/writing for your class? Is it the old standard of two hours of work for each hour in the classroom? More? Less?

If you ignore labs, our students spend just under 12 hours per week in class, so to meet the two hour standard they should be studying somewhere around 23 hours per week.

Here’s what our seniors reported a couple of years ago

At the top end –

35.5% of our women report studying more than 21 hours per week.

16.2% of our males fall in the same category.

If you want to be really depressed,

17% of women report studying 10 hours per week or less

37% of men report studying 10 hours per week or less.

My guess is that this self report data isn’t very accurate, and the low number for the men may be rooted in a sense of what is cool

But even if the numbers aren’t accurate, they reflect a widespread perception that students don’t need to study at the level we think is appropriate.

Huge lost opportunity for learning

So what do we do about it?

**Making expectations visible**

Obvious first step is to explain our expectations. How often do you talk about your out of class expectations? Do you do it on the first day, or do you repeat it later on when there is more of a chance their ears are open? Do you restate them frequently?

If we do talk about expectations, we need to go beyond telling them they need to work hard. Their understanding of those words and ours are very different. We also need to go beyond telling them they need to spend two hours for every hour in class. Watch students study – may sit for two hours, but sure not focused for two hours.

Instead, we need to talk about what they should be able to do with the material after they are done studying. In other words, what does the result of a successful bit of studying look like? Can they explain the concepts to a friend? Can they close the book and write short summary of the argument with two pieces of evidence? Can they do the homework problems?

We can also clarify expectation s by sharing rubrics with students. My only word of warning here is that just giving them the rubric probably isn’t going to help much because the words are going to mean one thing to you and something else to students. The best solution for this that I have found is to tie the rubric into something you are already doing in class. Get the students to provide answers/evidence from the readings, get that on the board, and then get them to apply the rubric categories to it – and work it through.

Of course, another option is to post examples of really good work on Moodle. Again, I would encourage you to add a paragraph or two on why you see this as good – just to make sure students see the parts you want them to see.

I visit a lot of classes, and I often hear students in small groups say that they didn’t finish the reading or the homework problems because it was too hard. My interpretation of that is that it didn’t come easily, so they gave up.

One response is simply to push them to try, but I think we can help achieve our objectives if we do something that I at least never saw as part of my job –

**Help Learn How to Learn**

Learning in our disciplines is second nature to us. We went into our fields because something clicked for us, so it is hard for us to imagine that other people don’t see it as easily. Because it is second nature to us, we expect that everyone knows how to read in our discipline, or everyone knows how to study in that area. That’s simply not the case. If you need confirmation, I suggest you try taking a course in an area completely outside your field.

We need to realize that many of our students don’t know how to read in our area, plus they are often clueless about appropriate study strategies. They don’t realize that the approach that worked beautifully in the Shakespeare class isn’t going to work in a chemistry class. So, we need to help them learn how to read and how to study the content areas we are teaching.

Again, telling is good, but showing is even better. Can you do some modeling of what was important to you in a couple pages of the reading? Even better, can you show them how to organize the material they need to know.

Concept maps – just drawing them is great, but now there are several on-line versions where you can move things more easily.

So, I’ve talked about clarifying expectations and finding ways to give students better tools when they try to do the work.

What is missing is thinking about incentives. How do we get them to actually use our advice and try to meet our expectations?

**Incentives**

Grades are the obvious, time-honored approach, but I want to stay away from that as much as possible for two reasons. First, it seems pretty clear that for some of our most hard to reach students, grades aren’t a great motivator. Getting by is enough, and in the current universe, it is pretty hard to flunk out of school if you just go to class.

Second, and much more importantly in terms of this presentation, I don’t want to focus on grades because that means even more work for us. And remember, I promised you “low-cost” approaches.

For me, the ultimate low-cost incentive is to connect what I want them to do to rewards well beyond this class. In little bits over the semester, I’ll make some comment about how the kind of independent learning skills they are practicing can be the key to their future success once they graduate. Talk about employers who are going to give them some broad assignment and expect them to run with it. They will have to figure out the dimensions of the problem, track down the relevant information, and do it all on time – or not keep their job. Homework – learning on their own outside class – gives them the tools to do this because it is learning how to learn.

Another no-cost approach is to talk about the difference between a performance approach and a mastery approach. Students who are more toward the performance end of the spectrum see learning/grades/feedback as an either/or situation. If you get a good grade, that shows that you are good at the subject. If you get a bad grade, it shows you aren’t – and that’s a permanent condition that can’t be fixed. You’ve all heard students say I’m no good at math or I can’t write.

The other end of the spectrum is a mastery approach. Students who internalize this view see learning as a process of improvement and grades/feedback are simply indicators or guides toward that improvement. They are ways of knowing what you need to do to get better.

Since the performance approach is more often associated with school work, I try to talk about these distinctions in non-academic areas and get them to see the parallels. For example, you can talk about learning a sport or an instrument or learning to drive and that if it is something you care about, you don’t quit when just because you aren’t a star when you start. Instead, you realize that you need to practice in order to get better, and as you progress you might even seek out expert advice. I then try point out that they can/should take the same approach in their college classes.

Another low cost approach is peer pressure.

Small groups are perfect for this if you take care of three points.

First, groups have to be expected to produce something meaningful that is shared publicly. In other words, directions for the small group activity have to extend beyond “talk about it.” Groups need to be ready to present their views to the whole class, do a problem on the board, explain a process or summarize an article. If they have to do this in front of their peers, they will work because they don’t want to be embarrassed.

Second point – this isn’t going to work if the groups are formed new each time. Much more effective if they are together for a third or quarter of the semester. Develop sense of responsibility to group – and slackers aren’t going to be able to keep coming unprepared without criticism.

Third, you need some way of making students think that some of their grade rests on peer assessment of their small group work. I’ll show you one way to do this in a minute.

I love watching people teach, and as I have done so, I have seen lots of wonderful approaches – and naturally things I could steal.

I’ve also had the opportunity to think about opportunities we miss to promote out of class learning.

For example, lots of us don’t visibly reward students whose out of class work leads to good results in class. Too often, we ask a question, and when we get the right answer, we simply move on to the next question. Think about the impact if when you get a really good answer – maybe 3 or 4 times a class – you praise the student with “good insight,” or “great answer,” or whatever. That student feels validated and is going to want to do the work to have that feeling again. For at least some of the other students, there will be a parallel incentive – and all of them will have a better idea of what a good understanding looks like.

And if you are willing to do a little more work, you have a huge impact by giving them

periodic feedback on their class participation. We are pretty good at giving feedback on written work – but we forget about sending a message on what we expect in terms of class participation.

I use this form. Pass out early in semester so that everyone knows they are going to be evaluated on participation. And I point out the section where they rate the others in their group. That really eliminates the free rider problem.

Once students turn in form, I respond with written comments on their role, merging my observations with that of their peers. I also include their discussion grade for the unit.

Do this each time we change small groups – usually three times a semester.

Great for sending a message on expectations for participation.

Ok, let me move on to what is a somewhat higher cost approach – it doesn’t involve grading, but it does require a shift in the way we think about our roles.

Let me run you through a little list. You have been told that you need to read the assignment for the next class. For each scenario, I want you to indicate how diligently you would do that reading. Use a one to five scale, with five as maximum preparation.

It is likely that the professor will spend most of the period on something other than the material in the readings.

It is likely that the professor will to use class time to tell you what was in the readings.

Ok students, what are your scores on these two questions. How many said they would be inspired to maximum out of class preparation in either of these scenarios?

I did this because I too often I see wonderful, compassionate teachers shooting themselves in the foot by following the second of the approaches I asked you about.

They want students to learn, but think that the material is too difficult, so they start class by summarizing – they usually call it “clarifying” -- what students should have learned from the out of class work. As you can guess, if we do this two or three times, most students are savvy enough to stop doing the reading before class. And guess what happens when we ask students to discuss the material after our little mini-lecture? Students don’t see any point because the expert has already given them the “truth.” Our usual conclusion from this is that students don’t read and won’t discuss, so we have to tell them. I’m asking you to break this vicious circle by expecting students to get as far as they can on their own at first – BEFORE you help. It may be that they can’t get much at all, but they need the expectation that they are responsible for showing what they learned in their out of class work.

So, make them work first, and even when you step in, the more that you do that is clearly based on the out of class work assigned for the day, the more likely they will be to actually do it.

Ok, let me ask you three more questions. Pretend you are students, and ask yourself how diligently you would do the out of class work in these three situations --

It is likely that the professor will ask questions on the readings, but wait for people to volunteer an answer.

It is likely that the professor will ask questions about the readings, and call on people randomly for answers.

It is likely that the professor will ask questions about the readings, and call on each student.

So, which was most likely to inspire maximum preparation??

I raised these questions to remind us to think about the connection between our willingness to call on students and the likelihood of them doing the out class work in a serious manner. Students who don’t care about blowing off some assignment from us are usually very reluctant to appear stupid in front of their peers.

So, calling on students increases their preparation level. It is also enhances learning during class through active engagement. The act of explaining something you are learning helps build the pathways in the brain that increase our ability to retain and find that knowledge.

And notice -- absolutely low cost for us – no grading necessary.

Personally, I don’t like calling on students, but I know from painful personal experience that if I don’t do it, the class doesn’t work nearly as well.

Try to make it a part of the class – do from the first day

Not punitive, but an invitation

Avoid the sense I am picking on someone by group calls

“Lisa, Sam, Harry – we haven’t heard from you in a while – what do you think about this?”

**Slightly higher cost options**

Ok, I think I’m out of the fairly low cost options, so let me share some that require a little bit more work from us in terms of grading.

Obviously, you can drive out of class learning by requiring students to do something that shows their learning before they come to class

short paper

Posts on Moodle

Journals

Or demonstrate with in –class activity

occasional unannounced in-class free writes on the topic.

Brief m-c or short answer quizzes

Small group presentations

All of these things work well in pushing students to do things that promote learning – IF the questions are well focused on whatever the students were to learn outside of class.

So, we do have to come up with questions/assignments that really fit what you want them to learn.

But we don’t have to do them every class.

Periodically

More often at beginning of semester

Not necessary to put a lot of work into grading – the purpose of this kind of work is to get them to dig and to think before they come to class. Parts they didn’t understand should be covered in what you do in class so lots of comments not necessary.

Grade on a check, check plus, check minus basis and be quick.

So more grading, but not necessarily lots more.

**Handout –**

Bunch of examples of these kind of activities – drawn from a variety of disciplines.

In summary, then, what I am urging you to do is to think about how your behaviors, your approach, can affect what your students do outside of class to learn. Obviously we can drive them to do more by assigning pre-class papers or having them respond to a prompt on Moodle before class or doing short in-class writings. I think those are all wonderful approaches, but I’m also conscious that they chew up more of your time. So, what I hope I have given you today are some approaches that will create more learning WITHOUT requiring additional work from you.

Examples of Relatively Low Cost Ways to Shape Student Work Out of Class

Learning Enhancement Service

October 1, 2013

Compiled by Ken Jones

Biology (Chemistry Department at CSB/SJU currently using this)

Students have to make a “significant start” on worksheets before class. Questions on worksheet test for understanding of reading and basic concepts. Can’t enter class if haven’t done. Report that everyone gets message by second week. Worksheets then used for cooperative work in class.

Biology

Homework questions for every class. Get credit if did good faith effort rather than perfection. Get full credit for course grade if do questions on 2/3rds of class days. Report huge jump in class participation

Chemistry

Students turn in 3 x 5 “survival card” at beginning of class with what they see as key material in day’s reading. Professor stamps and returns after class. Students can then add material but can’t submit new cards; professor holds till exam. Students can use during exam. Report that percentage of students doing reading before class went from 10% to 90%.

Physics

Students asked to write a “minute paper” at the beginning of class on what was most unclear in the out of class work. Professor quickly scans the responses and uses them to guide in-class discussion.

Science (and others)

Students take multiple choice quiz at beginning of class, first as individuals and then as group of four. 75% of grade based on individual score and 25% on group result.

Accounting

Learning teams of four. Grade for all four on the exam determined by the group’s average score. Pushed students to work harder outside class to help each other; best students grades increased the most because learned by teaching

Psychology

Students come to class with a one sentence answer to question posed by instructor, and three passages from text as supporting evidence

Theology (and others)

Students e-mail a reading response before class that includes things I found confusing, things I found interesting, things I would like to discuss further. Professor reviews before class and shapes class around key concerns. Students must contribute for half the classes. Report big gains in preparation and engagement.

English

Assign four students in group different readings on same topic (jigsaw). In class students receive assignment that requires use of all four sources. Group grade suffers if one person didn’t do his/her part.

History

Sign in and defend. Professor poses question that can be answered with a grade or on a 1 to 10 scale. Students have to put their name and their answer in the form of a grade or number on the board. Professor uses those answers to push discussion between students. Reports that act of putting position on board greatly increases investment and preparation