

## 5C: Classroom Demonstration

**Amit Savkar, PhD, UConn Teaching Fellow, Associate Professor in Residence, Assistant Director of Faculty Development CETL, University of Connecticut** [00:00:00] I believe that the biggest purpose for feedback is to have a two-way communication to establish expectations between the professor and the student.

**Sophie Adamson, PhD, Associate Professor of French, Chair of the Dept. of World Languages & Cultures, Elon University** [00:00:11] The difference between grades and feedback are that grades assign like a measure of value, whereas feedback is really about the process and it's about helping a student develop.

**Desmond Stephens, PhD, Associate Professor, Department of Mathematics, Florida A&M University** [00:00:23] Students do not always know how to use feedback, and part of it is because I think often they're not given the best feedback.

**Desmond Stephens, PhD** [00:00:36] Last night, you all had some homework on integration, and so we're going to have a brief quiz this morning to get started.

**Desmond Stephens, PhD** [00:00:42] It really is helpful to students that they get the feedback in a timely fashion because that's the only way they can make changes.

**Desmond Stephens, PhD** [00:00:49] All right. I'm going to put you on the timer, I'm gonna give you three minutes to complete the problem that's up on the board, and then we'll discuss.

**Desmond Stephens, PhD** [00:00:56] Feedback via grades is just not timely. In the past, I might have given students a quiz or a test and it may have taken me two weeks to return that. So if students are working on problems and trying to learn concepts and they don't get feedback for two or three weeks, it's not enough for them to take corrective action.

**Student** [00:01:11] I believe that the differential that you're looking for is dt.

**Desmond Stephens, PhD** [00:01:15] Okay, part of it is dt. Is there something else that's up there that's not related to your U that you substituted for?

**Student** [00:01:22] All of the t's.

**Desmond Stephens, PhD** [00:01:24] Okay, so what part of the t's, could you be a little bit more specific.

**Student** [00:01:28] As in, like, the numerator has  $4t$  squared.

**Desmond Stephens, PhD** [00:01:31] Good. So if you put together the  $4t$  square dt, that's the differential that you're looking to actually substitute for.

**Desmond Stephens, PhD** [00:01:38] Feedback needs to be clear and specific. We want to be positive, but we don't want to be superficial. So good job, attaboys are fine on a baseball field, but for these students, they actually need to know specifically what they've done correctly and they need to know specifically what they're still having trouble with.

**Amit Savkar, PhD** [00:01:55] Good job and excellent work and things like that work for people who are doing well. But then you have those students who are struggling. And if you are not specific about the kind of feedback that you give them and encouragement that they need at the point that they need it, it is very easy for them to kind of get off track.

**Student** [00:02:15] Just use that if you can't substitute du back in there, and, like, cancel something out, correct?

**Desmond Stephens, PhD** [00:02:21] Very good. So the way we determine whether or not a choice of u is bad or good, is whether or not when we go back to substitute, if it actually simplifies our problem and eliminates the other variables and leaves us with just u's. Does everybody see the difference? Okay, and that's one of the critical pieces that you're going to have to be able to understand so that you navigate these problems correctly. I just wanted to let you all know that this is an ungraded activity. It was just so that you could get some feedback so that you'll be better prepared for your test on Monday.

**Amit Savkar, PhD** [00:02:52] Feedback is an integral part of assessment. You have an assessment, you get students' performance, and then you have to give a feedback to see if that performance matches the learning outcomes.

**Sophie Adamson, PhD** [00:03:06] So this is a paper from last semester, anonymous, and you'll see on your copy that I included my feedback for you to see.

**Sophie Adamson, PhD** [00:03:15] I like to give students previous students' work with my feedback on it. So we work through it. And that way they know my style of feedback.

**Sophie Adamson, PhD** [00:03:25] I want us to look at the first three sentences with my feedback in the margins. Look at, for example, the sentence, "Tahar Ben Jelloun denounces this well" and you'll see that my feedback says, "Avoid your personal judgment," right? So what would you do if you're the student who receives my feedback? How could you tweak that sentence to take my feedback into consideration?

**Student** [00:03:52] You could say instead, "In L'ecole Perdue Tahar Ben Jelloun expresses this idea."

**Sophie Adamson, PhD** [00:03:58] Expresses this idea.

**Student** [00:04:01] Tahar Ben Jelloun brings to light this issue.

**Sophie Adamson, PhD** [00:04:04] Excellent. I think both of those give you a good model.

**Zoe, Student** [00:04:07] It definitely helps me to then go back and revise my own work by sort of seeing what the professor highlighted where.

**Sophie Adamson, PhD** [00:04:19] Feedback is not just a conversation between an instructor and a student. More and more we see students as resources in the classroom for each other. And so we expect and we guide students towards offering feedback to each other.

**Sophie Adamson, PhD** [00:04:33] So go ahead and exchange your paper with the person next to you. And we're going to do some peer feedback. What are you going to look for in your partner's first paragraph, for example?

**Student** [00:04:45] A thesis?

**Sophie Adamson, PhD** [00:04:46] Okay, so you want to look for this thesis, you want it to be obvious, strong, and certainly on the first page. And if it isn't, go ahead and write a note in the margin to your partner that, that it's missing, right? Imagine that you're the professor. What feedback do you have for your peer about the thesis? Is it compelling? Is it clear?

**Desmond Stephens, PhD** [00:05:08] We want to do something called peer review. It'll give you an opportunity to objectively look at somebody else's work and try to determine what's right or wrong. And it'll also give you an opportunity to see how I'm looking at your work when I'm grading so that you'll be prepared for your test on Monday.

**Desmond Stephens, PhD** [00:05:23] Peer review is very important to students' development because it's teaching them to get feedback. It also helps them to understand what it's being looked for.

**Sophie Adamson, PhD** [00:05:32] What else did you find? Were there any surprises when you were reading your peer's work? Kristoff?

**Kristoff, Student** [00:05:38] Well, I noticed that the thesis wasn't until the second page on this one, which reminded me I didn't put a thesis on mine, so I kind of go back and edit that.

**Sophie Adamson, PhD** [00:05:46] Okay, perfect. Now you have an extra resource. Now you have new eyes on your own paper, right? And so keep working and then I'll look for the next draft for our next class.

**Desmond Stephens, PhD** [00:06:00] So what I have done is I've put together some common errors that I've seen from students in the past. And I want you to look at these problems to try to identify the errors that you see.

**Desmond Stephens, PhD** [00:06:10] The big reason why I use the common errors exercise is because it helps students see that they're not alone in making mistakes and that they actually see that the mistakes and the issues that they may be having with the subject matter, other students have had it.

**Desmond Stephens, PhD** [00:06:23] One of the errors that's clearly here is that the du is not actually a differential.

**Desmond Stephens, PhD** [00:06:27] And it gives them an opportunity to see that before I've graded a test.

**Student** [00:06:31] Even when you plug it back in, you shouldn't have du squared, because that's just not how the equation supposed to look.

**Desmond Stephens, PhD** [00:06:36] Very good. So there is no du squared, right. Differentials are not squared.

**Sophie Adamson, PhD** [00:06:41] I've got a sheet here of common errors that are actually based on previous semester errors. Every time you refer to France, right? How do you say, "in France?" So go ahead and take a minute and look at your peer's work for some of these common errors. You are going to focus only on adjectives. Every time you see an adjective missing, adjective agreement, highlight that, okay? Adjective agreement only.

**Desmond Stephens, PhD** [00:07:12] I think that you can't give too much feedback, and you do have to measure it so that students have a space to try to use that feedback to improve.

**Desmond Stephens, PhD** [00:07:19] Did any of you recognize any of these errors that you might have made in your homework in the past? Raise your hands if you have. So the purpose of this activity was actually to help you see some of the common errors students make and to help you not make those errors on Monday and in the future when you're working problems like this.

**Desmond Stephens, PhD** [00:07:37] Students are used to not using feedback to grow, but using the feedback to see how they've already done. And so we have to train them that this is how you actually perform in life, that you get feedback, you make changes, and you improve. All students need feedback. All of us need feedback. No matter how well we think we're doing something, we can always improve.