

April 22, 2005

Subject: *Balancing Underteaching & Overteaching*

Most likely, at this time of the semester, we are worn out from teaching and are looking for some well-deserved R&R. But if we have any energy left, this might also be a good time of the year to reflect on our teaching while issues are fresh in our minds...and to start thinking now about how to improve our courses in the future. One of the most difficult things to accomplish as a faculty member is to strike a balance between doing not enough for our students in our courses (students learn entirely on their own) and doing too much for them (enabling). In this teaching tip, Robert K. Noyd (2005) frames his argument about striking a balance in Teaching within an Aristotelian perspective. Although Noyd's perspective does not give us too many answers in terms of engaging activities and methodological approaches, he does give us food for thought that may help us design more effective courses in the future that focus on student learning. If time is of the essence right now, skip the intro and move right to the 5-part question where Noyd uses his own experiences to answer the question: "How do I strike a balance?"

APPLYING ARISTOTLE'S GOLDEN MEAN TO THE CLASSROOM: BALANCING UNDERTEACHING AND OVERTEACHING

"In his *Nicomachean Ethics*, Aristotle argues that moral virtue and the right course of action is a "golden" mean, (*aurea mediocritas*) between two extremes, one involving excess and the other deficiency. The method Aristotle used to pinpoint the mean, or the virtue, was to first identify the two extremes. "Courage is a mean between cowardice and recklessness, generosity is a mean between wastefulness and stinginess." Aristotle added that decisions of moral virtue are situational and are made within a specific context. For example, under one set of conditions running into enemy fire may be considered courageous, whereas in a different situation it may be considered reckless.

This Aristotelian perspective was brought to my attention by a colleague from our Philosophy Department in a conversation where I felt that I was more invested in my student's achievement than they were. There seemed to be no limit to what I would do to help my students-I provided handouts that encapsulated the readings, test preparation hints, learning strategies, and lesson objectives. It seemed the pendulum had swung all the way in my teacher-centered classroom-all the way to an extreme of overteaching. From that point on I realized that I needed a framework to make teaching decisions and determine the right course of action for my teaching practice. What follows outlines my quest to find the golden mean where I strike the right balance between doing too little for my students, or underteaching, and doing too much for them, or overteaching.

How do I strike a balance? How do I decide the best course of action that promotes student learning as well as reinforces desirable student behaviors? How do I find the golden mean in a given teaching situation? Using an Aristotelian approach, I identify both extremes and then use the following question to determine the context: Am I giving the right student the right amount of assistance, at the right time, for the right reason, and in the right manner?

Let's examine this five-part question. Because they're ready at hand as it were, I'll use examples from my own time in the classroom and the insights that time has brought me.

1. The right student

Knowing your responsibilities and those of your students in the teaching-learning process is the gateway criterion. If you don't know your students and the efforts they truly bring to the process, you cannot determine the right type, amount, time, or reason to give assistance. (How to get to know who your students are is whole different matter, but you have to know them. They can't be generic students to you or you cannot make wise-that is to say, contextually informed-teaching decisions about them.)

Underteaching is characterized by making students responsible for almost all of the learning process. The teacher's investment in the learning outcomes is low and may communicate to students that the course is a "weed out" course and students are on their own.

Overteaching occurs when instructors shoulder too large a share of the teaching-learning process; that is, overteachers take on numerous responsibilities for learning that properly belong with the student. It is important for instructors to know who's responsible for what in the classroom. Depending on the context, over_teaching may take the form of a last-minute review session or providing many pre-exam questions.

2. The right amount

Teachers, by nature, are generous and giving of their time, their expertise, and their emotions in an effort to help students. This fact makes many outstanding instructors prone to doing too much, rather than doing too little. We all know that our students may be at different developmental stages in terms of maturity, readiness to learn, expectations, and intellectual capabilities. Thus the appropriate amount of assistance you provide will differ among your students. The extremes here are marked by not understanding or assessing students' knowledge, skills, and attitudes. Large, heterogeneous classes are the most challenging.

The amount of support you provide also depends on the degree of struggle you want _students to experience. It is important to teach and value persistence because not all learning comes easily; a lot of it requires working hard.

Underteaching is characterized by not giving students enough guidance so that they can solve a problem or complete an assignment on their own. In terms of challenge and support, underteaching emphasizes the "challenge" without the appropriate amount of "support." The result is frustrated students who may give up.

Overteaching emphasizes the "support" over the "challenge." In several cases, I have eliminated or reduced meaningful learning activities because in my context they

represented overteaching. For example, in upper level courses I have sometimes given my students complete sets of notes and PowerPoint slides because I thought they would learn more and achieve better grades if I gave them this level of support and encouragement. But by doing too much, I created dependent students who relied on me to provide the "right answer."

3. At the right time

This part of the question refers to the timing of assistance and communication. Do students seek help the night before the exam or the paper deadline? How do we promote planning ahead as a student behavior and discourage cramming for exams? How do we teach students to organize their time to optimize their performance?

Underteaching occurs when I have not given enough guidance on project planning and have left it all to the student-in other words, when I've minimized my role in the process.

Overteaching occurs when I have front-loaded information when students don't need to know it and then kept reminding them along the way. This created students who depended on me to constantly remind them of a pending deadline.

4. For the right reason

An instructor's motivation for providing students with an amount and type of assistance at a particular time is an important consideration because it makes teaching decisions purposeful and intentional. The reason is linked to the goal. What is the motivation for reviewing for an exam? Is it to boost the exam average to meet the expectations of the class, or is it to be more efficient in giving extra help to a large class? What motivates an instructor to post notes and PowerPoint slides for students?

Underteaching is characterized when I have not had a stake in the learning success of my students. To be charitable, underteaching can occur when one places so much value on the process that (to the students) the product just doesn't matter.

Overteaching occurs when I closely link my teaching success to my students' achievement. In many courses, students measure their success by the grade they earn instead of the amount they have learned or the progress they have made. When I have linked my success to class grade averages, I have been rewarded for doing more for my students and overteaching in other areas of the classroom. Their inflated grades gave me an ego boost, but it wasn't clear they actually learned more. Over_teachers overemphasize product over process. Moreover, when the student product has not been successful, I have overtaught (or poorly taught) in another way. I have protected or tried to soften my students' feelings of frustration, anxiety and disappointment-the genuine and appropriate feelings that often go with learning new and difficult material. In short, I robbed them of something they needed to know about the geography of learning.

5. In the right manner

This criterion refers to the process of instructional delivery, whether it is lecture, multimedia, group learning, or computer-based systems. The teaching tools you use depend on the students' learning styles and preferences and contribute to the developmental appropriateness of the teaching behavior.

Underteaching occurs when one uses techniques that don't properly support students' learning styles. For example, I have lectured exclusively in a verbal style when the students in the class needed more support through diagrams and visual depictions of the concepts. In terms of lecture, I underteach when I have talked "over the heads" of my students, leaving them inattentive and unengaged in the material. I have assumed that students can fill in the gaps between concepts because I, the expert, can. In this case I emphasized the "expert" when my students were "novices."

Overteaching occurs when I emphasize the "novice" in the expert-novice continuum. I elaborate novice concepts, unaware that the concepts are intuitive and familiar to students. Another example: giving students lower-level recall questions that they can easily handle, keeping the course "light-weight," or when I tell them the complete story, fill in all the gaps, weaving a highly knit fabric, and therefore leave little for their imaginations. I have learned that an important device in telling a good story is to leave something for the audience to figure out and not explicitly tell them everything. This way they stay involved with the storyline and plot.

This round robin of questioning with a set of contextual perspectives in mind, this looking for a golden mean between doing too much and doing too little has helped me adjust my teaching to the students enrolled in my classes; but, to return to the beginning, you have to have a good idea who those students are before this dialectic becomes very useful. As the renowned educator David Ausubel once said, "a person's existing cognitive structure is the most important factor governing whether new material will be meaningful and how well it can be acquired and retained." Thus, I'm a great believer in pre-testing and in using things like the "knowledge inventory" questionnaire already discussed in the pages of the Forum (V13N1, p. 8_11).

An Aristotelian approach can be applied to making teaching decisions. The right course of action does lie along a continuum, whether it is in the expert-novice, process-product, or challenge-support realms. The right decision depends on the specific teaching-learning situation. For me, teaching is a constant attempt to determine the right course of action within this spectrum, to find the golden mean that promotes, rather than inhibits, the learning and personal growth of my students into independent, confident adults who meet our educational outcomes."

*This article was share in the online forum "Tomorrow's Professor," and was written by Robert K. Noyd, Director of Faculty Development U.S. Air Force Academy.