PEDAGOGY

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Ending the Semester on a Positive Note

The end of the semester is a stressful, exhausting, and poignant time. Some suffer from the end of semester blues. It's also a time of some sadness, as the intellectual community that you've constructed comes to an end.

Help Your Students Vanquish Stress

- Consider a "stressbuster" event—such as bringing refreshments to class—and ask your students how they handle end-of-semester stress
- Make sure that your students understand what they need to do to prepare for the end of the semester.

Have a "Capstone" Experience

- For example, consider having present their research.

Reviewing for the Final Exam

Make sure your students are on track. Help struggling student find focus and direction.

- Be learner friendly.

  Highlight what students need to know in order to be successful.

- Share your grading criteria.

  Show students examples of strong and weak answers.

- Model appropriate test taking strategies.

  Discuss such matters as pacing, prioritizing, and time management.

Build Reflection into Your Final Class Sessions

An undervalued process that often gets lost in the end of the semester rush is reflection: The opportunity to think critically about the course, question concepts, draw conclusions, and synthesize. Yet it is during reflection that deep learning occurs.

Return to the syllabus and have the students review the course's learning objectives and consider how well they have achieved them. Here are some questions you might ask:

- Has your approach to … changed during this course? If yes how?
- . Have your attitudes about …. changed?
- . How do you feel you performed in this class?
- What would you do differently if you took the class again?
- What suggestions do you have for improving the class?

Saying Goodbye

The end of the semester is a time of transition for both you and your students. You will often feel a sense of loss as your class draws to a close, as if your students' 15 week visit is ending too soon. Your students will too.

- Don't be afraid to offer your students some parting thoughts.
- Make it clear that your connection with the students will persist after the class is over.
- Consider establishing some end of semester rituals

Ensuring Students Come to Class Well-Prepared

Consider requiring a think piece to be submitted prior to class. Examples include:

1. ***A reading abstract:*** A succinct summary of a required reading.
2. ***A reading annotation:*** A brief evaluation of an articles' strengths and weaknesses
3. ***A response paper:*** A reaction to specific elements in a reading: the effectiveness of the argument, the quality of the data, and the validity of the research design
4. ***A position paper:*** A student's point of view on an issue
5. ***A discussion starter:*** A key issue or questions raised by the readings
6. ***A reading evaluation:*** An assessment of a newspaper or journal article's accuracy, use of evidence, and conclusions.

Each of these papers will ensure that students have read and thought critically about the course material.

Warning: Be explicit about what you want the students to do. Provide the students with a sample. Identify the issues that they need to cover.

How To Respond to a Think Piece

1. Say something positive.

-- Has the student identified a key issue raised by the reading?

-- Has the student accurately summarized a particular reading's argument?

-- Does the student demonstrate understanding of a particular concept or theory?

2. Say how it might be strengthened.

-- How might the analysis be made clearer?

-- Is there a relevant issue that wasn't addressed?

-- Is there an ambiguity or contradiction in the student's argument?\

-- Has the student failed to take a position on the argument?

Getting Students to Speak

One of the biggest challenges you face as an instructor is getting students to open up. Here are some tips about how to get students to actively participate in a class discussion.

1. Consider requiring every student to speak at least once in each class session.
Make sure you explain why it is essential for students to participate (e.g. to clarify confusing or difficult concepts, to express opinions, to contribute alternate interpretations, or to develop oral presentation skills, and so on).

2. Give students time to reflect before calling on anyone.
You might periodically ask students to briefly answer the question or solve the problem on paper before asking for an oral response.

3. Be comfortable with long pauses.
Avoid the impulse to lecture at students when they are silent. If you keep quiet, the students will eventually speak up. They hate silence even more than you do.

4. Survey your students.
For example, ask them: "How many of you agree with...?" Then turn to one of the students and ask why she or he took that particular position.

5. Have students read passages from a text out loud.
And then ask the student to interpret the selection.

6. Have your students give a brief presentation.

For example, you might ask your students to introduce a class session or to present questions for discussion.

7. Stage a debate or a trial.
You might divide the class into three groups: affirmative, negative, and jury or prosecutors, defense, and jury.

8. Closely monitor students' body language and facial expressions.
You can often tell when they want to express an opinion.

9. Rile students up.
Don't be afraid to provoke students and ask them what they think.

How to Get Your Students to Read What You've Assigned

1. Sell your students on the reading

Explain why you selected the reading. Describe its purpose and value and relevance to the course. Be explicit about the connection between the reading and other class projects and assignments.

2. Situate the reading assignment in a broader intellectual context.

Whether the book is fiction or non-fiction, it is part of a larger cultural conversation. Help your students understand where it fits in.

3. Teach expert reading strategies

Help the students become expert readers. You know how to read efficiently; share your tips.

If it is a work of non-fiction, you know how to identify the author's thesis and trace the development of the reading's argument.

If it is a work of literature, you know the importance of asking questions. Here are a few: Why did the author choose a particular title? What is the setting? Who's the protagonist and does the protagonist evolve over the course of the work? What is the relationship between the protagonist and the narrator? What themes or issues does the work explore? What motifs run through the work? What characters, actions, or situations beg to be taken symbolically?

4. Provide study questions.

Study questions help students focus their reading.

5. Make students responsible for completing the reading.

Consider requiring a response paper or an online posting. Or you might begin your class by asking students questions based on the reading.

Integrating Metacognition into your Teaching

Many students study inefficiently, overestimate their command of course material, and are unable to accurately assess their performance on papers and tests.

Cognitive psychologists use the term metacognition to refer to skills that are essential to classroom success: students' ability to critically monitor their understanding, devise efficient approaches to completing an assignment, sustain their motivation, and evaluate their intellectual growth.

Students with strong metacognitive skills are successful inside and outside the classroom. How can you strengthen these skills?

1. Make it clear that ability is not innate, but is a skill that can be developed over time.

Many students are mistakenly convinced that they can't learn math or a foreign language or how to write fluently. Students who understand that competence develops over time demonstrate increased motivation and better performance.

2. Help your students identify and set goals.

Many students study unproductively because they fail to identify clear learning objectives. It is helpful to provide students with "prompts" that help them focus their reading or studying.

3. Give students the opportunity to practice self-monitoring.

Overconfidence is rife among students and many exaggerate the grade that they are likely to receive in specific courses.

-- Before a class begins, ***give students tips on "active listening" and note-taking.*** At the end of the class, have the students write down the three most important points made during class.

-- During class, ***pose problems and ask students to assess how sure they are of their answer***: Absolutely sure, fairly sure, just guessing.

-- ***Have students integrate metacognitive activities into their homework***. For example, ask them to anticipate how long it will take them to read a particular text or to answer a problem set. Then, when the task is completed, ask them how long it actually took

-- After returning an exam, ***ask students to briefly reflect on their learning***. Ask them to describe the mistakes they made and why they think they made those mistakes.

-- With essays, ***provide students with a self-assessment sheet*** which includes elements drawn from your grading rubric. Ask students to evaluate their thesis, the development of their argument, their use of evidence, their consideration of counterarguments, and the clarity of their prose.

The 7 Secrets of a Successful First Class

1. ***Use an icebreaker to get to know your students***

    -- Divide the students into pairs and have them introduce one another.

    -- Have students write down two adjectives describing themselves.

    -- Ask students to describe something they alone have done.

    -- Ask students why they are taking the class.

2. ***Explain why your subject -- and your section -- is important.***

3. ***Provide essential course details.***

4. ***Get students to describe their prior knowledge and expectations.***

5. ***Learn the students' names ASAP.***

    -- Nothing is more important in establishing rapport and a sense of community.

6. ***Establish your identity and expectations.***

    -- You need to establish your credibility in the first class session.

7. ***Jump in head first.***

    -- Make sure your first class is substantive.

Successful Math and Science Teaching

Introductory math and science courses have the highest failure rates of any courses in higher ed. In part, this is due to poor student preparation, attendance, and note-taking skills. A surprisingly large proportion of students do not attend class regularly, fail to attend help sessions, and do not take advantage of extra-credit opportunities.

But other factors are also at work. These include a failure to develop instructional strategies that actively engage students and address their confusions and misconceptions. Effective instruction can raise achievement levels even among students with uneven preparation.

Here are some concrete suggestions about how we might improve student achievement in foundational courses in math and science.

1. Don't confuse rigor with a high failure rate.

Lower-level science and math classes make up a disproportionate share of universities' "weed-out" (or "intro to failure") courses. These courses typically have a lecture format, a very fast pace, a high level of abstraction, and little interaction. Many students find them confusing, intimidating, uninteresting, and frustrating.

2. Math and science anxiety are real - and need to be dealt with.

Math and science anxiety refers to crippling feelings of panic that some students experience. Its roots are cognitive and emotional. Major contributors include a mistaken belief that is an aptitude for math or science is innate; that math and science are intrinsically difficult; that students are either good at math and science or at reading and language; that math and science courses are highly competitive; and that math and science are a domain dominated by male geeks.

Here are a few tips about dealing with math and science anxiety:

-- Don't rush--make sure the class' pace is appropriate to the students.
-- Encourage questions, and don't dismiss student questions as dumb or naïve.
-- Pay close attention to gender equity in calling on students.
-- Do your best to make a particular topic stimulating.
-- Adopt an investigative approach: identify a question to answer or a problem to solve.
-- Don't solve problems for your students; let them solve problems for themselves.

3. Gender and ethnic disparities persist--and can be addressed.

Recognize that classroom dynamics can discourage - or encourage - student achievement. In classes with high levels of interaction and an emphasis on active learning, problem solving, and conceptual understanding, gender and ethnic gaps are significantly reduced. Monitor classroom dynamics and encourage participation by all your students.

4. New technologies can greatly enrich science classes.

New computer and information technologies can stimulate student learning in a variety of ways. They can:
-- Enhance student access to information
-- Disseminate the distribution of problem sets and lecture handouts.
-- Promote collaborative learning.
-- Allow instructors to create animated presentations, models, and simulations, including 3-D visualizations, which help bring abstract concepts to life.

5. Remember: Students learn most when they are actively engaged.

Active learning entails interaction with the instructor, with their classmates, and with the material itself. Here are a few examples:

-- Ask provocative "warm-up" questions at the beginning of class.

Examples might include:

What did you observe?
What do you think happened?
How do we know?
How does this compare to?
What other factors might be involved?
How could we find out?
How could we test this idea?
What evidence do we have for?
Does this make sense?

-- Have students read research based articles in peer review journals, or have them compare studies that address the same research question.

In these ways, students can learn about experimental methods, data sets and their interpretations and explanations, and about scientific controversy and debate.

-- Convert your lab section from verification into inquiry.

Science labs serve multiple functions: They offer a way to illustrate concepts, teach scientific techniques, and encourage discussion. But they can do more. Rather than simply verifying facts and concepts presented in lecture, laboratories can also provide opportunities for students to ask questions, formulate hypotheses, collect and analyze data, and interpret and present results in a formal (oral or written) manner.

-- Have students apply knowledge gained in the classroom to real-life societal problems.

Consider teaching with case studies. For example, in a biology class, one might incorporate a discussion of bioethics; in physics, a discussion of nanotechnology; in chemistry, a discussion of biofuels or carbon sequestration. These case studies offer the added advantage of integrating writing and oral presentation skills into the curriculum.

--Create a learner-centered course:

Spell out each session's learning objectives.

Arouse and sustain student interest by posing provocative questions and problems; using inquiry and discovery activities and challenging student misconceptions.

Adopt a problem solving approach; use "real-world" problems and examples whenever possible.

Integrate active learning into your course.

Identify where you students have difficulties; be empathetic and put yourself in your students' shoes.

Explore topics in multiple ways and incorporate multimedia into your teaching. Use animations, equations, graphs, diagrams, and concept maps. These help students visualize abstract concepts.

Explain, define, demonstrate, illustrate; use demonstrations and simulations to make sure that students develop a conceptual understanding as well as an understanding of basic facts and quantitative problem-solving skills.

Consider using clickers to collect student responses to questions posed during class

Have students read, summarize, and analyze science articles from the popular press.

-- Follow the basic rules of effective class presentation:

Be enthusiastic and engaging;
Keep eye contact and look away from the blackboard;
Avoid a monotone and vary your pacing and the tone, and pitch of your voice;
Insert well-placed pauses in your presentation;
Make sure your organization is clear and logical;
Keep the number of points to a minimum;
Make transitions explicit and restate your main points;
Use analogies and move between the abstract and the concrete;
Visually reinforce your points.

Teaching Large Classes

As a junior faculty member at a public university, you are likely to teach some very large classes, with 200, 500, or even more students. In many instances, these large classes will not have breakout sessions.

How can you motivate so many students and help them succeed? Here is some practical advice.

1. Getting Your Students to Come to Class

Make sure your lectures are substantive and lively. Convince your students that attendance will improve their chances of success. Consider including audio and visual resources in your presentations. Write a lecture outline on the chalk board.

2. Reducing Feelings of Anonymity

Let students know a bit about you, including your interests, how you experienced this course as an undergraduate, and how the topics you learned proved valuable in the future. Make the class feel smaller by leaving the lectern, walking around the classroom, and distributing handouts yourself. Also, let students know that you are accessible.

3. Making Your Class More Interactive

Integrate activities into your class: brief writing assignments; problem solving activities; polling of students (perhaps using clickers or simply having students raise their hands); and asking students to draw concept maps or to outline concepts and theories.

Also, consider "turn-to-your-neighbor" exercises, where a student is asked to think about a question and briefly discuss it with a neighbor. Or invite a student up to the front to assist in a demonstration or a problem solving activity.

Intersperse questions during your lectures.

4. Preparing Students for Success

Emphasize essential points in lectures. Discuss exam-directed issues in class. Incorporate a review session into your class prior to each exam.

5. Monitoring Student Learning

Incorporate a 1 minute paper into your class: Have students write down the three most important points they learned and the point they found most confusing.

6. Minimizing Cheating

Have multiple versions of your exams.

Teaching Your Students the Secrets of Effective Reading

Secret 1. With works of non-fiction, read from the outside in.

1. Start with the title.

What does it suggest about the book's argument?

2. Look at the table of contents.

How is the book organized?

3. Read the introduction and conclusion.

What is the book's thesis and its place in a disciplinary debate?

4. Read chapters' first and last paragraphs, and then the topic sentences.

What are the chapters' major themes and arguments?

Secret 2. Ask What? Why? Where?

1. What is the book's controlling argument?

2. Why is the author making this argument?

To challenge a rival interpretation? To advance a political agenda?

3. Where is the argument weak or unconvincing?

Secret 3. With works of literature, read the text from multiple perspectives:

a. The aesthetic: How does the author uses language, style, tone, and characterization to engage and manipulate the reader?

b. Read between the lines: What subtexts, deeper meanings, allusions, and symbolism do you see?

c. The "human condition": What does the text tells us about the human condition: about human nature or love or families or growing up?

d. The "politics of literature": What political or ideological beliefs, values, and ideas underlie the text?

e. Cultural criticism: What assumptions does the text make about femininity or masculinity, whiteness or blackness, civilization or nature, race or class? Does the text support the dominant views of its time or subvert them?

f. Reader response: How might different readers—male, female, African American, Latino, working-class, gay or lesbian—read and experience the text?

g. The ethical: What are the moral implications of the ideas advanced in the texts.

What Actors Can Teach You about Effective Pedagogy

Teaching is acting. Although you may not have the poise, the verbal skills, or the emotional and physical expressiveness of a professional actor, your teaching will benefit enormously if you are familiar with the techniques used by live theatrical performers.

Backstage Preparation: Acting, like teaching, requires extensive "backstage" preparation. Actors research roles, memorize lines, and rehearse. You, too, need to prepare. You not only need to prepare a lesson plan, but think intensely about how you are going to engage and involve your students. And before your class begins, warm up. Quietly concentrate on your class. Flex your muscles. Stretch.

Know Your Role: Your role is not simply to transmit information. It is to motivate and engage students, to facilitate discussion, to create a learner-centered environment in which they learn how to engage in inquiry, solve problems, and undertake sophisticated forms of interpretation and analysis.

Have a Script: Every class session should have a lesson plan: A clear set of objectives and methods for achieving those goals. Remember: less is more. Students have a limited ability to assimilate information and its best if you have no more than 3-5 learning objectives for each session.

Cultivate Stage Presence: Even when you do not feel confident, it is still essential to exude a sense of presence. When you enter your classroom, you need to radiate energy and purpose.

Eye contact: As every actor knows, there is no better way to connect with an audience than to look into individuals' eyes. Eye contact sends the message that your students are, for the moment, the most important people in your life. Make sure that you scan the room, rather than focusing on a single student.

Vocal control: Professional actors make full use of their voice. So should you. Enunciate. Speak loudly. Vary your inflection. Speak directly to your students. And don't neglect the power of silence: Pauses will highlight key points, will allow your students to catch up, and will help you avoid ums and uhs.

Poise: You communicate not only with your voice, but with your body. If you fidget or slump in your chair or cross your arms on your chest, you are revealing your nervousness and insecurities. Even if you are anxious, you can still demonstrate poise. Sit up straight. Display energy.

Passion: The single-most important quality you can bring to the classroom is passion - for your discipline and the specific topics that you are teaching. Passion is contagious. If you convey genuine feeling for your subject, your students will respond.

Bring Your Class to Life: There are various "tricks of the trade" that you can use to add "sparkle" to your class and make sure that students pay attention and retain the information you convey. Just as actors use props, you might consider making use of visual images, sound or film clips, anecdotes, handouts, or artifacts.