The Front Row: A Small Group Feel in a Large Class

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Frustrated with the traditional lecture format in an upper-level chemistry class that enrolled more than 100 students, and envious of my teaching assistants who spent time in small recitations working on problem solving with my students, I designed an approach I call the “The Front Row.” It brings a small group feel into a large classroom.

The class had three one-hour lectures a week, plus six one-hour sections of recitation. I stopped giving the Friday lecture when I implemented the Front Row format. Two students from each section (a different pair each week and announced on the previous Wednesday) would sit in the front row, and I would hold a recitation-style discussion with them, while the other students watched and listened.

I opted for a fast-paced hour of short question-and-answer items, solving problems, and short questions about units or values for constants with the goal of trying to touch on as many topics from the past two lectures as possible. Questions posed on Fridays were projected onto a side screen. Sometimes we did work on larger problems, but we always broke them down into small, manageable parts. I expected the entire class to work on the problems posed, but those in the front row had to go to the board and present the solution. If students had questions about how to approach a problem, they could ask me, and at times we worked together to find an answer. I used this interaction to clarify what students were expected to understand and do, and they reported that the activity did make clear what I expected in answers. Some weeks, I used Fridays to explore new material, restructured from a lecture format to a discovery mode. I would walk students through new information via some well-chosen examples, gradually providing new information for them to use.

The recitation representatives casually competed with each other during the process. Throughout the hour, a teaching assistant sat to one side, “keeping score,” which enhanced the inter-recitation rivalry. The TAs told me that more students had questions during recitation as they anticipated upcoming Front Row challenges.

I opted for two students from each section so that they could work together and no individual would be singled out for an answer. Each pair of students had a team name written on a clipboard, and when they were ready to answer a question or solve a problem, they would raise their clipboard. On occasion, when no one in the front row could provide an answer, any class member could offer one.

Although the front row and I engaged in a lively exchange on Fridays, the strategy could make it easy to lose the rest of the class. To avoid this, a problem covered on a Front Row Friday frequently appeared on a quiz or exam or in homework. This tactic made it clear that Friday was not a day off for the rest of the class, and it did positively influence both attention and attendance on Fridays. In evaluation feedback, students not in the front row also reported that they benefited from seeing what their peers could and couldn’t do and from what they knew and didn’t know.

Before each Friday session, I made a seating chart of the front row, so that I could call on everyone by name. I also asked those in the front row to be there five minutes early. This helped me to learn most of the students’ names. I also asked them to stay for five minutes after class, to get their input on how the session went.

Coupling the approach with my commitment to a “teach less/learn more” philosophy, I found that I could still cover most of the material that I did in the traditional lecture format, sometimes faster. I knew this format was working when students started asking to participate in The Front Row. At the end of the class, on class evaluations, there were significant increases in their evaluation scores of me as an instructor, notably, “The instructor showed concern for the students” and “The instructor seemed to enjoy teaching the course.” Evaluations also provided the opportunity for written feedback. Several students wrote, “I love Fridays!” One wrote, “This class was designed in a very tricky way—I managed to learn a lot about a relatively difficult subject, yet it was fairly painless. Tricky!” As for me, I have to be honest and say I found Fridays exhilarating.
Student Perceptions of Plagiarism

Studies documenting the pervasive presence of plagiarism abound. Universities have policies designed to prevent it, in course syllabi harsh language warns students of the consequences, and faculty pronouncements reinforce the message. And students get that they shouldn’t do it, but so far that hasn’t stopped many from using the words and ideas of others without proper acknowledgement.

Researcher Lori G. Power decided to explore “some of the ways first- and second-year university students understand the phenomenon of plagiarism.” (p. 644) She sensed there might be a disconnect between student and faculty perceptions of plagiarism. She used a qualitative research design that involved 90-minute discussions with students in focus groups and in 90-minute private interviews. The study involved 31 students and the interview prompts she used are included in an appendix. They offer great starting points for an in-class conversation about plagiarism.

Her findings are most revealing—there is only space to highlight a few of them here. The students in this study “see plagiarism as a bit of a power trip. Professors and college administrators seem to often tell students not to plagiarize, and warn them of the consequences, but these students don’t believe they do as well at helping students understand why not to plagiarize, or how not to plagiarize.” (p. 653) Here’s a quote typical of what many students reported: “I don’t think teachers teach it well enough. I don’t think they teach well enough, and what to do, and how to take the words, and how many words you can take without being considered plagiarism. They just say, ‘Don’t plagiarize.’ But they never tell you what to do to not plagiarize.” (p. 653)

Power found evidence that plagiarism can seem like a power trip when she asked students who identified plagiarism as a crime whether it was like stealing a grape from a salad bar or more like committing a murder or stealing a car. In nearly every case the students said it was more like stealing a grape, especially if they were plagiarizing on a paper for a course as opposed to stealing ideas for use in the real world. Here’s what one student said: “I can’t get over the fact that people get so upset if someone takes a paragraph and uses it for school. You know? I think people getting that upset is ridiculous. Maybe if they printed it in the New York Times and played it off as their own would be a big deal. But playing it off in a small school? I think that’s ridiculous.” (p. 653)

The students in this cohort who did not plagiarize were prevented because they feared being caught, not because they understood the ideas of intellectual property and the ownership of ideas. They “did not seem to care about it intrinsically, as a matter stemming from themselves. It was almost always a function of their professors and what they cared about.” (p. 656) “Most of the student interviewed here had not adopted the concept of plagiarism as part of their own moral toolkits.” (p. 659)

As for how professors prevent plagiarism, they typically inform students that there is a policy prohibiting it in the student handbook and students may review it, if they have any questions. “Every student in this study knew the plagiarism policy could be found in the student handbook. However, not 1 of the 31 students had read it. In fact, only two had read any part of the handbook at all.” (p. 655)

As for conclusions, this researcher thinks her data indicate pretty clearly why our current methods of prevention are not working. We need to hear what students are saying about not understanding the mechanics involved when using the ideas of others. Beyond that,
Confessions of a Bad Teacher

It's not often an article starts with an admission like this: “I was a bad teacher.” (p. 32) Can you see yourself submitting an article that begins this way? Definitely not before tenure and probably not even after that—is that what most of you are saying?

And what was it that made Mark Cohan a bad teacher? “I was not mean or abusive to students, and I didn’t make capricious demands, ignore my syllabus, grade while under the influence, or test abusively to students, and I didn’t make.” (p. 32) But his course evaluations were not stellar despite a great deal of time devoted to preparation. However, what signaled his ineffectiveness was how disconnected he felt from his students. “They were enigmas to me, and I didn’t know how to deal with the varying levels of interest, commitment, and ability they brought to class. All I knew how to do was to expect of them what I had always expected of myself—not perfection, exactly, but something close to it.” (p. 32)

Like many of us in academe, Cohan was raised in a middle-class family where school was a priority. It was expected that after high school he would go to college. His parents paid for his education so he didn’t need to work while in school. He could give school his full, undivided attention. “I had been taught my whole life to see myself in terms of grades and commitment to school and to judge myself harshly if either of those faltered; why wouldn’t I see my students through the same lens?” (p. 34)

Cohan arrived at his first job with high expectations for students, which they mostly failed to reach. And he critiqued their performances, offering way more judgment than praise. He says that he lacked “the compassion, patience and power necessary to help students meet those expectations.” (p. 33)

But the problem really wasn’t Cohan’s students. “Truthfully, it was I who was not measuring up; I was not practicing the craft of teaching at a high level and, more importantly, I was not taking full measure of myself. I was not reflecting on who I was and how that could, would or should inform who I was as a teacher.” (p. 33) Once he started making that reflection an integral and ongoing part of his teaching practice, he was able to reorient his teaching. “My own transformation has meant that I am much less a critic and much more a mentor to my students.” (p. 33)

His transformation did not happen overnight, nor is it fully finished, nor has progress always been straightforward. He has arrived at a place where he is moving forward by stops and starts. Early on, a tutoring experience with one student gave him “a glimpse of a new conception of the teacher. … What that experience produced was a shift in consciousness. The recognition (albeit intermittent and partial) that one fundamental flaw in my teaching—a source of the angst that infused my effort and daily wore me down—was inside me meant that I could actively work to change it.” (pp. 34–35)

Cohan’s insights about himself were affected by teaching experiences in a community college and at a small Jesuit university where teaching was taken very seriously. It was there that his pedagogical knowledge began to grow. Attendance at workshops and conversations with teaching colleagues encouraged more thinking and reflection about his teaching—some of it decidedly painful. “Sometimes, all of this confronting and contemplation left me overwhelmed. I would become convinced that all of my course designs were broken beyond repair and that I would need a year … to scrap and rebuild them. In darker moments, I was convinced that I was broken beyond repair—a well-meaning but hopeless instructor who didn’t have the gift.”

But Cohan has made much progress. “I believe I’ve come quite a ways from my days of teaching students like problem children and writing outlines on the board to avoid really interacting with them. The challenge for me … has been to stop projecting who I was as a student onto my students.” (p. 36)

This is one of those truly amazing articles! Many teachers begin where Cohan started, but few are willing to own up to the problems that come to those who teach from a place of superiority and impossibly high standards. Not only is this a journey from which others can learn, it’s an optimistic piece. Teachers can change how they orient to teaching—not around the edges with a few new techniques, but how they teach and what they believe about students.


Plagiarism

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she suggests, “We need to improve our strategies for helping our students discover the importance of intellectual property and the sharing and ownership of ideas.” And she goes still further and wonders if we might not need to reexamine how we conceive of intellectual property. “In our insistence on original ideas from our students, we must ask ourselves, is our own work original? Do we not learn from scholars who have gone before us, even internalizing some of what we have learned so that it is no longer distinguishable from our own ideas?” (p. 658) Interesting questions, indeed.

This is an excellent study addressing an important topic. Its design and explanation of findings show how effectively qualitative inquiries are at ferreting out reasons beyond the obvious ones. This is accessible research from which much can be learned.

Why Students Struggle in Math Courses

Students struggle in many college-level courses—but we don’t spend much time exploring why. We’re quick to blame the students, who are working too much, taking too many courses, are not terribly motivated, and do not have great study skills. But that kind of generic castigation is not as helpful as what political scientist Justin Buchler offers in his article on teaching quantitative methods to math-averse students.

He begins with this observation: “The primary obstacle to teaching quantitative methodology to math-phobic students is that they have never been taught how to learn math.” (p. 527) That problem is exacerbated when students attempt to apply inappropriate study techniques to learning math. “Since nobody tells students that they must adopt a different approach to learning math, they become frustrated when their tried-and-true approaches do not yield the same level of success that they do in other classes.” (p. 527) Then students panic. “Fear can be healthy in some circumstances, but the difference between fear and panic is that panic prevents rational behavior. When students panic, they resign themselves to defeat, scour their memories for any arbitrary technique, and hope for partial credit.” (p. 527)

So how do teachers constructively intervene? “We must show them that the reason they have had difficulty with math in the past is not the impenetrability of the subject, but that they have been using the wrong studying techniques.” (p. 527) What makes this article particularly valuable is that Buchler identifies five misconceptions that students have about the process of learning math.

“Move on and try to figure it out from the context”—This approach works when students have been assigned a difficult reading. Some unfamiliar words can be figured out from the context. But Buchler calls this advice “dangerous” and “damaging” when students try to apply it to math. Math involves series of steps that logically progress from one to the next. There is no way the third step can be figured out if the second step has yet to be understood.

“Do you understand so far?” “Uhhhh…yes”—Those who teach math understand its linearity and almost automatically inquire about understanding after each step has been explained. The problem is that students often say that they understand when they actually don’t understand. Students don’t want the teacher and their peers to know they are confused.

What can a teacher do when students are saying they understand but the teacher isn’t sure that they do? Giving a quiz will make it very clear who does and doesn’t understand, but quizzes can’t be administered every five minutes. Buchler says that teachers need to look closely at students’ faces. Most students are not entirely effective at hiding their confusion. It can be embarrassing to directly confront a student who looks confused. It’s better to say, “I know that this concept often confuses students, and some of you don’t look like you understand. Who will be brave and ask a question so I can see what’s confusing you?”

“I put all the formulae on flashcards to study for the exam…”—Buchler’s point here is a simple one. It takes far more work to memorize a formula that makes no sense than it takes to understand the logic on which the formula rests. A student who understands this logic won’t need to memorize the formula and is much less likely to make mistakes on the exam.

Just let me finish copying down the formula…”—When a teacher writes a formula on the board, shows it on an overhead, or includes it in a PowerPoint, students copy that formula down in their notes. The problem is that they stop taking notes at that point, and that’s just when they should start taking notes. Buchler says it this way: “They can always look up the formula in a book, but they will have a much more difficult time reconstructing the logic behind it on their own, so it is much more important that they take notes on that part.” Buchler recommends taking time to have a student explain the logic in his or her own words and then giving everyone in class a few minutes to write their own explanations in their notes. He thinks that asking a student to explain why a procedure works is a much more valuable homework assignment than having them do lots of calculations. Finally, he recommends letting students use the first few minutes of class to review their notes from the previous class—they should be encouraged to ask questions.

“What formula should I use here?”—Students think that math is a matter of applying formulae by rote. “When given an equation to solve, they follow a set of steps that can always be applied (at least to the questions they are given) based on the intellectual equivalent of muscle memory.” (p. 529) This is cookbook math—follow the recipe and get the desired result. Change one or two ingredients in the recipe and students are lost. “This problem isn’t anything like the ones we did in class.” Buchler thinks teachers make things worse when techniques are taught as disconnected procedures. Whatever students are taught must be part of a larger, integrated framework. That way they can use logic to determine which formulae apply in which situations.

The article is a beautiful model and not just for those who teach math and courses that rely on math. Studying any field requires special skills and unique approaches. We can all beneficially do what Buchler does in this article—identify those approaches students try that are not successful, name and describe the alternatives that are successful, and be sure to make a discussion about how to learn our content a regular part of every course.

The Power of Introductory Courses

“An introductory course is the discipline’s handshake: it is the greeting that either seals the deal or in varying degrees convinces the learner that this discipline has little usefulness.” (p. 778) Given the importance of these first courses, John Hoag and Neil Browne make the case that these courses should encourage students to think deeply about the discipline.

Perhaps because these courses are taught so regularly, we become complacent about how high the stakes are. “Those who teach the introductory course get one and only one opportunity to encourage continued interest in the discipline itself.” (p. 778) At many institutions close to 50 percent of all students change their majors at least once. A good learning experience in an introductory course can be influential as students consider or reconsider decisions about a major.

When decisions about what to teach in the introductory courses are made, arguments are framed in terms of what should be taught and to what extent. Should the course offer a simple introduction to the discipline or should it present a discipline’s complexities? Hoag and Browne point out that if the decision favors an overly simplified version of course content, then “the student experiences a caricature of the subject matter.” (p. 778) If faculty opt for lots of complexity, that can frighten students off.

The simple–complex dichotomy can be resolved by using the introductory course to encourage deep thinking. “Deep thinking is challenging thinking, pushing the student to the edge of her comfort zone, and by doing so agitating the mind so it is ripe for moving beyond where it is currently.” (p. 779)

Deep thinking is closer to the complex than simple side, but Hoag and Browne think the complexity is lessened if teachers focus on teaching a smaller, select group of key concepts rather than presenting an overview of the field and covering multiple topics. The article sites several studies documenting the fact that with respect to content, more is not always better in terms of how much students end up learning.

Hoag and Browne question whether faculty will take the risk involved in presenting the discipline’s underlying assumptions and then challenging stu-
What’s in It for Me?

These days when the focus is on students and learning, it may seem highly inappropriate for teachers to be asking, “What’s in it for me?” Facilitating student learning is not without benefits, but what else is there in the college teaching profession for us? William Buskist has compiled a list of 10 rewards that come to those who teach. Here’s a brief description of each.

Enjoying the intellectual challenge: “Teaching is through and through an intellectual endeavor, especially if it is to be done well.” (p. 35) It is about communicating content we love, having a reason to keep current and an excuse to explore and reexplore areas that we find fascinating. We get paid to talk about ideas that capture our imaginations.

Enjoying solving “engineering problems”: “Knowing the content is one thing; engineering the optimum learning environment … is something entirely different.” (p. 35) It’s about assembling a complicated puzzle that includes what to teach, how to present it, what resources to use to support it, what assignment features expedite learning, how to assess that learning, and how to establish rapport and motivate students. And if you get it figured out for one class, great, but expect the same challenge in the next course when the dynamics have changed and what worked before is much less effective now.

Acquiring and refining communication skills: “A person with a brain full of knowledge is not a teacher … until he or she can convey that knowledge to another person.” (p. 36) Teaching provides opportunities to develop sophisticated communication skills, and many of those skills are transferable to other venues, like department meetings, conference presentations, and interviews.

Sharing our passion: We get to share what we love, regularly. We get to talk about why psychology, geology, math, or business logistics just happens to be the best discipline in the whole world. Sometimes our passion ignites a similar love in students. They major in the field, go on to make great contributions, and along the way give us credit for their presence in the discipline.

Making a difference in students’ lives: Buskist reports that he asked a small group (about 20) of psychology students what it meant to have teachers make a difference in their lives “and not one of them reported ‘learning psychology.’” (p. 36) No, almost three-quarters of them said that teachers made a difference in their lives by helping them “discover their academic and personal strengths” and by helping believe more in themselves. There is great satisfaction derived from knowing that you’ve changed some students’ lives for the better.

Recruiting the next generation of psychologists: Buskist is a psychologist, so that’s the field to which he wants students recruited. He’s writing about the satisfaction that comes from knowing that you’re helping the discipline to move forward, helping ensure that the brainpower needed to continue to advance knowledge in the field will be there.

Delighting in self-discovery: “Teaching, especially reflective teaching, can be a powerful catalyst for our personal development as human beings.” (p. 37) We learn important things about ourselves. We can look back and see how we’ve grown and changed. Teaching expresses personhood, thereby giving us the chance to encounter who we are and what we believe.

Enjoying the fun that teaching is: It certainly is not one of those jobs where you know exactly what’s going to happen and when. Each day in class is a whole new adventure, and when the class goes well, you can feel the energy and excitement that comes with learning, it’s just plain fun.

Enjoying good company of other teachers: Buskist quotes an exemplary psychology teacher, Bill Hill, who captures this essence of this reward. “I think the friendships and experiences around teaching and colleagues are the best part of an academic life, or for that matter, any line of work.” (p. 38)

Enjoying being a good teacher: “Teachers take pride in doing their jobs well.” (p. 38) It’s a profession where the work is important, where it matters, and where doing it has its own rewards. We’ve all had those days, those courses, those years when we really and truly love what we do.


INTRODUCTORY COURSES

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dents to question those premises. That kind of critical thinking is challenging, especially when so many faculty are used to presenting “the discipline to beginners in the form of orthodox generalizations and methods.” (p. 780). It’s really the difference between teaching that presents the answers and teaching that asks questions with yet unknown or uncertain answers.

This is a short article but one that challenges us to revisit what we are doing in introductory courses. It reminds us how important these courses are for students and for our disciplines. It asserts that there might be a better way and then makes a convincing case for deep thinking in beginning courses.
