One of my favorite parts of college teaching is dressing up and putting on a good show. I plan my outfits, apply makeup, coordinate accessories, even rework my lecture cue cards.

But here I sit on a Friday night, lecturing 25 students in my lavender pajamas. I'm teaching online.

Last year, I was asked to teach an online undergraduate class in environmental science — a course I have taught in summer school for several years. I had questions about the validity of this instructional medium. How would I know that the student submitting the work was the one registered for the course? Then again, did I really know that the person sitting in my regular class was the one who registered?

Teaching online also required rethinking how I deliver the subject matter. For 17 years, I've taught chemistry and environmental science standing in front of students. My student reviews had always been extremely positive, usually mentioning my enthusiasm, sense of humor and ability to convey the subject in an easy-to-understand way. My challenge was to do that via computer.

While I weighed the philosophical and pedagogical issues, my daughter took two online courses. That proved to be my best learning experience.
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She had always been a very shy student who never spoke in class. But in these online courses, she dived into discussions, posted her opinions and generally felt more free to participate than she ever had before.

I also took a brief course for online teachers from our university and learned that many of them were also shy and felt more comfortable delivering instruction via computer.

Since I was scheduled to teach environmental science in summer school, it seemed like the perfect time to write the lectures for the online course in the fall. My plan: On the day I had to deliver a traditional lecture, I’d just type it up in the morning, cut the grass, then teach the class in the evening.

I never got to the lawn. Each lecture required about eight hours of typing and illustrating to make it clear for online students. I also made the lectures available to my classroom students and they enjoyed critiquing them.

When the online class began, the students followed directions well. They wrote their biographies and summarized news articles about environmental issues. They answered questions about their own contributions to environmental problems, sometimes confessing to astonishing personal habits. They commented on other students’ submissions.

The discussion board was lively, with submissions posted at all hours. When a student wanted to discuss something privately, she sent me an e-mail message and we resolved the questions. I had learned from my daughter's courses that it was critical for the students to feel the teacher was always there, ready to answer questions — night or day.

When I invited my students to post photographs of themselves, only one took up the offer, entering a picture of the sunset over the bay near her house in Florida. Thus, the images I have of them are created by their work — their punctuality, their eagerness for the subject, their test scores and their interactions with other students. I've never met any of them but feel that I actually know quite a few.

Some students fell behind, tried to catch up, then drifted away. I sent them e-mail notes to prod them to participate or to improve their work, but I have concluded that some students need the discipline of the classroom to stay involved. Online courses provide too much flexibility for some. About 20 percent of my students were in this category.

Tests and required postings confirm that the students learn the material and integrate it into their lives.

I saw these students' attitudes develop before my eyes — that is, as I read their notes. They were quick to post an alert when an environmental problem became news, and many were outraged by environmental decisions made by the government while the course was under way.

Sometimes, the posts were heated, packed with references to issues we had studied earlier. I found that for online education, interaction — with the teacher, with other students — is a more integral element of learning than it is in the classroom.
Learning happened. It seemed to work best with students who were very comfortable with the computer and willing to become part of a community built around the subject matter. For teachers, it worked well if the teacher was willing to help build that sense of community and keep up with the e-mail.

I still teach courses in person, so I can keep having fun with wardrobe. But I'll be teaching environmental science online for the next few semesters and am planning to accessorize these pajamas with fluffy mules and a glamorous robe.