

Essays on Teaching Excellence

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Adding Online Computer Methods to Your Repertoire of Teaching Strategies

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Online teaching is reshaping instruction in higher education. Students and instructors can benefit greatly from its versatility. Animations of biological, chemical, and genetic processes increase student understanding of abstract concepts. Rotating objects and geometric figures allow students to view mathematical ideas and architectural, industrial, and engineering designs from several perspectives. Using interactive graphs and data bases, students see what happens when they manipulate financial, mathematical, and statistical information. Students no longer have to imagine sounds. Through the use of online aural capabilities, they actually can hear the voices of politicians; listen to normal/abnormal heart sounds; or conversations in languages other than English; and compose, hear, and recompose musical compositions.

Online instruction accommodates a wide range of learning and teaching preferences. Teachers and students can readily individualize course assignments by accessing a variety of internet links. Contacts between instructor and students increase with effective use of online office hours. Online lecture notes extend opportunities for frequent review. Quiz programs offer students the question/immediate feedback/ explanation sequences that improve learning.

Online discussion involves students in a wide range of activities that contribute to intellectual growth. For instance, timely online discussion can maintain the excitement of a special campus lecture. Multiple group projects can be facilitated through online discussion. Off-campus project mentors are accessible online, and their comments can be downloaded for later discussion. Through web links to sites abroad or personal email correspondence, students in foreign language classes can read the everyday prose of native speakers. Students and faculty can conveniently conduct many writing activities online, for instance, preliminary discussions of research paper topics and first drafts, peer editing, journal review, and planning for group reports. And instructors can communicate assignments and schedule changes as well as make announcements quickly and efficiently.

Principles for Online Instructors The same rationality that we apply in disciplinary research can guide online teaching, and we can carefully integrate online methods into a course. We can seek out learning principles to direct the selection and implementation of online teaching strategies.

- Active learning is better than passive learning.
- Learning requires focused attention and extensive time on task.
- Information organized in personally meaningful ways is easier to remember and use.

Faculty who use online teaching methods without carefully developing a rationale for their use are less satisfied at the end of a term than their counterparts who have sound reasons for using online instruction

Practical Planning As students and as instructors, we have participated extensively in face-to-face lectures, labs, and seminars. However, we have far fewer hands-on experiences with online university teaching. So how do we deal with the ups and downs of experimenting within a new teaching environment?

Try not to go it alone. Team up with a group that can provide coaching, feedback, confirmation, and support. Meet regularly to discuss what works and what might be changed.

It is important to consider how much time and energy to allocate to online course development and teaching. The scope of initial online projects is dependent on a number of factors. Some instructors succeed with ambitious projects; some prefer a gradual approach. Expectations for teaching, research, and service, as well as where one stands in the promotion and tenure process, should not be ignored. New course preparation is time consuming, often requiring several times as many hours as expected. Therefore, it is critical to our professional and personal well-being to establish a realistic calendar for online projects.

Software/hardware Details Check out the computer facilities available to students. Are there enough computers dedicated to class work? Are they in convenient locations and open at times students are likely to use them? Who will install and maintain the software? Try to develop some degree of hands-on skill in manipulating the computer course environment. If there is no time to learn the basics of a particular software, find another that is less complicated.

When our plans are well formed but facilities or technology support is lacking, we may have to ask for additional resources. If that isn't forthcoming, it may be necessary to change our plans, Implementation of online teaching depends in part on everyone in class having frequent, comfortable access to computers and software that is reliable and reasonably easy to use. To keep our sanity and our students, we have to balance what we would like to do with what is practical.

Even if we are part of an instructional development team, we need to learn to make simple changes online; programmers may be hired away, computer savvy students might catch the flu. And, we have to require team members to write careful explanations of what they do so that clear program documentation is available for future iterations of the course.

Learning Skills/Teaching Skills Although more and more students

are familiar with online learning, hands-on instruction for students is still recommended. A simple assignment using one or more course computer elements provides immediate practice with the online course environment. Monitor students' completion of the assignment; provide online feedback to increase student interest and use. Establish a dialogue with those students who have not completed the assignment; find out if their non-participation is related to the computer teaching strategies. Even when initial training is well-done and online activities are well-integrated into a course, anticipate a few computer-phobic students.

A laissez-faire approach to online teaching seldom works; some degree of monitoring and feedback are essential to encourage student participation. However, different online strategies require different approaches. For online discussions, pose focused introductory questions, and peel off topics and responses from the general discussion as needed. Judiciously monitor the groups, avoiding the extremes of neglect or excessive intervention; add information or call for particular students' views, refocus, reflect, summarize, and close discussions. Try to make your own messages to students models of good online writing--timely, succinct, to the point, respectful. In addition, take into account your and your students' discussion time commitment, so that the online discussion doesn't become onerous.

Although online office hours provide opportunities for timely interchanges, student use is not automatic. To attract student attention, answer some questions posed in class online, post comments on widespread misunderstanding, post sample exam questions and offer bonus points for correct answers. Negotiate ground rules for the kind of help to be offered, as well as for response time frames. (Otherwise students may pose a question at 23:22 and be disgruntled if it is not answered by 8:30 the following morning.)

In addition to monitoring student use, collect informal student feedback about online use. Early in the term, ask students to respond to such questions as the following: 1) Which online strategies contribute to your understanding of the course material? Explain your answer. 2) What do you like least about working online in this course? This information provides a base-line for

adjusting instruction during the term.

Sources of Information about Online Teaching In addition to information from experienced faculty and students on campus, the World-Wide Web is a rich source of information about online instruction. 1) Commercial sites demonstrate the latest teaching software. 2) University sites highlight faculty accounts of online teaching; many of these reports are invaluable for their insights and honesty. 3) Evaluative studies discuss key components of successful online courses. 4) Dedicated listservs offer thoughtful commentary. It is not necessary (or even possible) to become familiar with all the available online software and strategies used in higher education, for the field is large and the information and applications are constantly being updated or supplanted. However, there is enough summary information available so that we can evaluate the many opportunities, costs and benefits of online instruction.

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