

Ten Commandments and Caveats

about Using TECHNOLOGY IN EDUCATION

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Whatever use you might make of technology in education, remember:

- I** Student learning is the goal and the ultimate measure of performance - not just feeling good about supposedly brilliant teaching, and certainly not using technology for the mere sake of having fun or impressing people with technology. Introduction of technology is, in itself, not equivalent to curricular innovation or course redesign. Beware the geek professor!
- II** Both student learning and effectiveness of technology have to be measurable by assessment tools that are related to goals and standards. (This doesn't mean that informal observations by experienced teachers are inaccurate.) Goals and standards have to be something more than "doing a chapter a week" or "reducing the DFW rate."
- III** Not all assessments are part of testing and grading, but grading and testing must reflect goals and assessments. If you teach it, test it; if you teach and test it, grade it.

If you do use technology, remember:

- IV** "If you are tempted to replace the teacher with a machine, first try replacing the teacher with a human being." (thanks to article in *CALICO Journal*, ca. 1985).
- V** Don't over-introduce technology, especially when students will be using their own facilities. 1) As in the language lab days before the Walkman revolution, school computer/internet technology is, at least for a while yet, more advanced than the average student's technology. 2) Students' technological expertise is not nearly as great as it appears to them or to us. A few geeks may irritate you with their contempt of your less-than-hi-tech learning materials, but if you aim too hi-tech, the larger number of inept or just indifferent users of technology will make your life miserable with their frustrations and refusal to see the point in using technology.

- VI** Expect an introduction or "diffusion" cycle of 5 to 10 years for even good educational technology to

take hold. The first stage will involve great frustrations and frequent lack of appreciation, because many won't understand what to do or why they are doing it. The last stage will involve an almost universal lack of appreciation, because the technology will have become "transparent" and almost no one will be grateful for it or will recognize your heroic efforts (1995: "What's a CD-ROM drive?" 2004: "Oh yeah, CD-ROM. Thanks, prof. Whatever.")

- VII** Getting students to use technology as the main mode of delivery requires getting them to see why it is indeed better than the conventional mode of delivery. This change of attitude may be hindered by student learning patterns and goals that are radically different from what they should be. The language student who wants a lecture and thinks that language-learning should focus on memorizing vocabulary lists and rules of grammar will not value listening to authentic broadcast segments at all, and will not understand that computer/internet-based use of digital audio media is superior to a book and an audiocassette. Early on in your introduction of technology, even the non-hostile student will need frequent and regular rewards simply for getting started on new material promptly, employing rather than avoiding the new resources, and staying on task.
- VIII** Assume that 1) administrators and technology specialists will have a wildly inaccurate notion of how learning takes place in your subject area - the technologists will want to help you do all sorts of things that are irrelevant, and the administrators will talk grandly and vaguely about how "we'll solve all that with technology;" 2) but: subject-area specialists may well have an understanding of pedagogy that is almost as poor as their technological competence.
- IX** Don't use technology to replicate the conventional but quite possibly ineffective modes of teaching in your field, such as the lecture or, in language courses, the grammar and vocabulary "drill and kill" approach. It's easy to yield to the temptation, since this is the simplest way to use technology.
- X** Learn to value the mundane uses of technology: record-keeping, messages to students, etc.