In a truly "smart" classroom, the instructor has a data display and every student has a computer with Internet access. The computer and Internet have become as essential to learning as the pen, paper, and textbook were in previous years. As a result, using computers in the classroom serves two purposes: increasing technological literacy and enhancing instruction.

Teaching in this type of smart classroom does not require technological skills we do not already expect our students to have. For instance, we do not accept handwritten assignments in most cases, but typing is not done today with a typewriter or word-processor; we use computers. The completion of these assignments most often requires Internet usage for research or other purposes. This computer and Internet work requires basic technological skills, which are not directly taught in any AUC course but are assumed as basic literacy by instructors.

Current research suggests that "future generations will value the ability to use information literacy as highly as we value the abilities to read and write today" (Walker, 2003, p. 18). Use of smart classrooms with a computer for every student creates an environment in which this information technology is taught through infusion with course material. As a teacher in the Writing Program, information technology has become part of my course objectives as it is intrinsically a part of critical thinking and the processing of information today.

Computers in the classroom certainly place the instructor in the position of the "guide on the side" and not the "sage on the stage", but it is a position that constructivists prefer. For those favoring these learner-centered techniques, smart classrooms have some advantages over traditional classrooms:

- The instructor is not the sole source of information within the classroom. Outside "experts" can be brought into the classroom through the Internet. When teaching argument and counter argument, I and many writing teachers use in-class debates. To emphasize the importance of research to support and stimulate arguments, students use Internet material to sustain their positions. Doing this research in class allows
instructors to teach effective and scholarly research methods and involves the students in the academic community beyond the walls of the classroom.

- Interactive quizzes can be part of individual instruction or used as collective learning activities. There is no need to "reinvent the wheel" when several excellent quizzes in many disciplines have already been compiled by instructors and are available online. There are also several easy-to-use websites that allow instructors to create simple interactive quizzes. Providing these quizzes in an interactive format, often involving multimedia elements, appeals to non-textual learners.

- Continuity between activities performed in class and at home is reinforced. Homework can be manipulated during class and shared with everyone on the same day the assignment is due. A consistently successful in-class activity in the Writing Program involves analysis and revision of student writing. The smart classroom has the advantage over the traditional classroom in these exercises because many students are simultaneously able to revise and share an assignment created by one student, and then these in-class activities can immediately be viewed and analyzed by the entire class while the objectives for the day are still fresh in the students' minds. Later, student work can be posted to the course website, making the results available for everyone outside of class.

However, a student with a computer is a dangerous animal. Daydreamers and doodlers now have the chance to do something "useful" during class, like check their e-mail. Of course, there is no way to prevent this use of the computers just as there is no way to prevent the same non-involvement in traditional classrooms. Focusing activities, grading participation, and immediately reviewing results limit the amount of time a student can waste in class. The fact that smart classrooms have programs to exhibit a specific student's computer screen on the instructor's data display also serves as a deterrent to using the computers for non-class work since no one wants to have his or her private email displayed to the class! More importantly, this program serves an instructional purpose. The instructor is able to focus attention on an assignment or problem from one student's computer by displaying it for the entire class. In some smart classrooms, the instructor also has the ability to manipulate the student displays so that the instructor's data display is projected on all computers. I have not yet had the privilege to teach in a classroom this intelligent!

In a traditional classroom we expect students to arrive ready to work with pen, paper, and textbook in hand. However, since these are not the tools students use outside of the classroom today, we should expect nothing less than students to arrive with computer and Internet ready to use. Since students do not come to class with the same technological experiences and knowledge, part of the benefit of smart classrooms is teaching information technology. The primary benefit, however, is the inclusion of even more learner-centered activities.


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