※ INNOVATION ABSTRACTS

Interactive Notes on the Worldwide Web

Over the years, I have developed a set of biology class notes which I make available at the reserve desk in the library for my students. These notes have been used extensively; many students have reported that having the notes before class helps them better prepare for and concentrate on the lecture. After attending a half-day workshop on HTML (HyperText Markup Language), I decided to put these notes in Cyberspace, our global library. Advantages include:

- Students will use the Web, a skill that some may argue is becoming as essential as the three Rs.
- "Cool sites" of relevance to the subject matter can be brought to the students' attention.
- The notes can be updated automatically by changing information on the Web itself.

This concept is simple, is not labor intensive, and can be applied to any subject area. For those instructors whose class notes are already on a computer, very little time is necessary to convert them to HTML; and translating programs are available.

My homepage, http://west.cscwc.pima.edu/~achristensen/ann1.html, contains my photograph, current office hours and schedule, a link called "cool sites" that may be of interest to my students, and another link called BIO 181 "syllabus and class notes." The cool sites are Web sites from the biology departments of other institutions or from industries such as publishers or biotechnology companies. Clicking on "syllabus and class notes" sends the students to my syllabus. Each topic within the schedule of lectures is a link to the notes on that subject. Within the notes, each key word is linked to a custom search of the Web. There is also a link to our departmental home page, http://west.cscwc.pima.edu/~achristensen/personal.html, that contains information about course offerings and other instructors.

I use a search engine (Lycos is excellent for biology; others are better for other subjects) to seek out information on a particular key word. Lower-division students generally do not formulate efficient searches, and this method helps them find the information they need. For example, in my notes on cell organelles, listed under the functions of the lysosomes, the words "programmed cell death" are linked to the following URL: http://a2z.lycos.com/cgi-bin pursuit?ab=apoptosis+cell+death+lysosome. My students are probably not familiar with the term "apoptosis," nor am I interested in their knowing it, but this word does add to the search. Some authors use only one of several synonyms in their text on their Web sites.

Should students wish to try their own hand at formulating a search, there is a backlink to Lycos, in which students are invited to type in their own key words at the end of each set of notes. One may argue that students should learn to formulate their own searches, and I have one such assignment which they must complete before beginning work on their term paper. They must turn in a complete Internet search, as well as a library search, on a topic. The quality and depth of term papers have substantially improved since I adopted this assignment. No longer do I receive term papers entitled "AIDS," "Dolphins," or "Global Warming." Students appreciate the tremendous wealth of information on these topics and focus on a more manageable subset. Recent papers have included in-depth discussions of the treatment of Valley Fever in dogs, the use of Interleukin-2 as a treatment for cancer, and the physiology of the vomeronasal system of snakes, to name only a few.

The use of a search engine helps keep my notes current. Moreover, students are exposed to interesting information related to the lecture material that enhances their overall learning environment. This technique can be of use to instructors in virtually all subject areas.

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One Hour Does Make a Difference!

The implementation of instructional technology is key to our future success. Faculty feel the pressure and raise such issues as time, access to computer resources, and skill development.

The literature on innovation adoption tells us that innovators and early adopters represent approximately 13% of the faculty population. They do not need our help! However, the early and late majority account for about 68%. How does a staff development department assist this group in adopting new educational technologies?

Our objective was simple: develop a hook that would bridge the gap from non-involvement to classroom application. With the help of our Faculty Innovation Centre, we developed a one-hour workshop called "Sixty Minutes with Powerpoint." This painless, one-hour time commitment was designed to expose faculty to an application of presentation software that would show immediate results in the improvement of their teaching. Faculty were asked to bring any material that they were using in their subject areas, and then each left the session with a diskette and a printed sample of presentation material. The majority of projects included overhead presentations or handout material.

By hosting these small group (4-5) sessions in the Innovation Centre, we introduced faculty to the Centre's services, including technical support, new product information, scanning, internet, and consultation. They were invited to come back on their own time to complete presentation projects or learn more. The gap was bridged. Over half of the participants returned to the Centre to experiment with new uses of technology in the classroom.

After hearing of the success of the program, many administrative departments also took advantage of the "Sixty Minutes." A new standard was established for internal presentations, conference proposals, and contract bidding.

Offshoots of this introduction have been varied, ranging from the development of professional overheads, to production of multimedia presentations and to development of curriculum using authoring software. Staff have developed increased skill in assessing the variety of off-the-shelf multimedia products that are available in their fields of expertise. Individuals also feel more confident in dealing with the innovators and early adopters. The intimidation has been reduced, and they are evaluating the use of technology based on their curriculum needs.

The keys to this very successful project include:
- the use of non-technical instructors who have software skill but possess excellent teaching qualifications and strong people skills
- promotional material that emphasizes classroom application
- an initial, minimal commitment of time
- access to support after the first "Sixty Minutes"
- small class size with maximum hands-on application and
- a curriculum that addresses and emphasizes the issues regarding instruction technology (e.g., cost, training, improved quality of learning).

A follow up to the "Sixty Minutes" sessions was a full-day workshop, "Great Expectations: The Role of Educational Technology in the Classroom." The event showcased examples of faculty implementing instructional technology. Presentations by colleagues were instrumental in persuading more faculty to cross the gap into the world of technology.

With more faculty interested in classroom applications, the role of the Faculty Innovation Centre has increased to include more support for faculty involved in video classroom, multimedia authoring, CD-ROM production, and Internet applications. Yes, one hour really does make a difference!

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